Paper
TRADE JOURNAL

Nov. 23, 1951

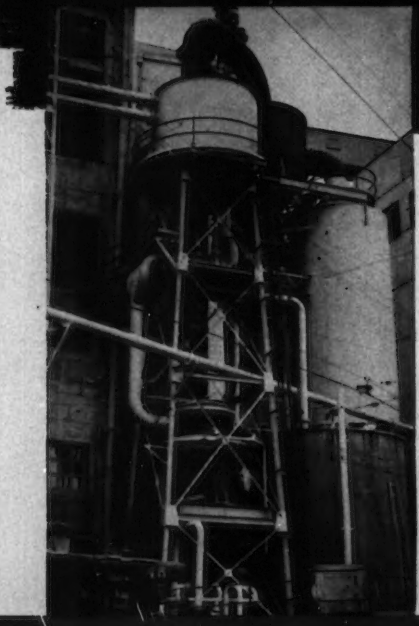
AMERICAN WRITING SENDS TWO MACHINES TO MEXICO . . . Page 11

MONADNOCKS N. H. OPERATIONS NOT AFFECTED BY ELIZABETHTON PROJECT . . . Page 11

HINTS ON TURBINE MAINTENANCE . . . Page 23

NEW MILL FOR MEXICO TO USE OTATE . . . Page 15

Controlled Digester Blow Heat Recovery Provides at Constant Temperature



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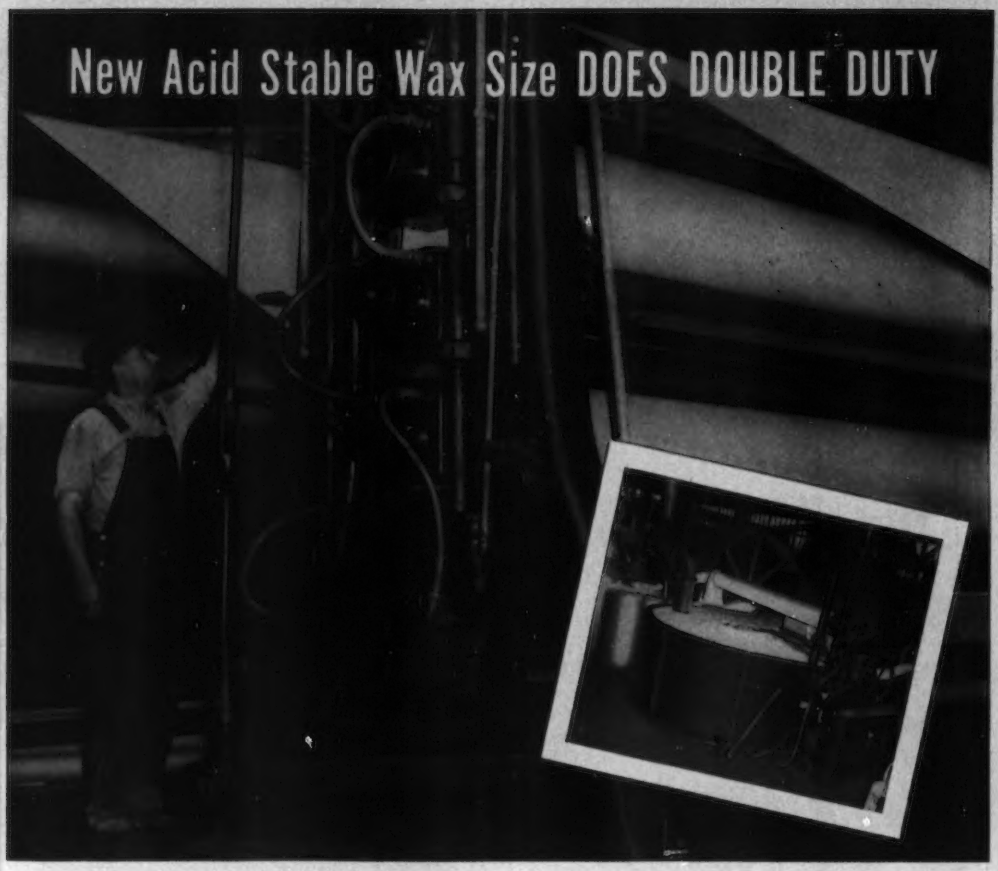
New Acid Stable Wax Size DOES DOUBLE DUTY



Designed as a Superior Surface Size, Nopco 2252-A combines with rosin to make an effective Beater Size*

For many years, Nopco wax sizes internally applied have set the standard for quality, uniformity and superb performance. The designations Nopco 2251 and Nopco 2252 have come to symbolize beater sizes that couldn't be beat!

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Moreover, Nopco 2252-A has proved exceptionally satisfactory as a beater size in conjunction with rosin in the proper balance.

Yes, here indeed is a "double-duty" size—one highly efficient for surface sizing yet equally useful for internal application.

You'll want to profit by trying Nopco 2252-A now. Our technical representative will gladly give you full information or arrange for a supervised run in your own mill soon. Invite him to discuss Nopco 2252-A the next time he calls, or write.

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Accessibility Like This Cuts Maintenance Costs

SEE HOW EASY IT IS to work on the packing and clear water seal of this Allis-Chalmers Type PW Paper Stock Pump. And notice that the casing bolts are in slots instead of holes. This makes it possible to remove the rotating element in five minutes and replace it in the same quick time. Neither suction nor discharge piping need be disturbed. Thus maintenance is easy and fast, maintenance costs are low.

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Allis-Chalmers pump representatives are thoroughly familiar with all types of paper making processes. One of these competent application engineers will be glad to help you with your pumping problems — or with your problems involving any other of the many paper making processes for which Allis-Chalmers manufactures equipment. Call your nearby Allis-Chalmers District Office, or write Allis-Chalmers, Milwaukee 1, Wisconsin. Ask for bulletins 08B7112 and 08B6725. A-3406

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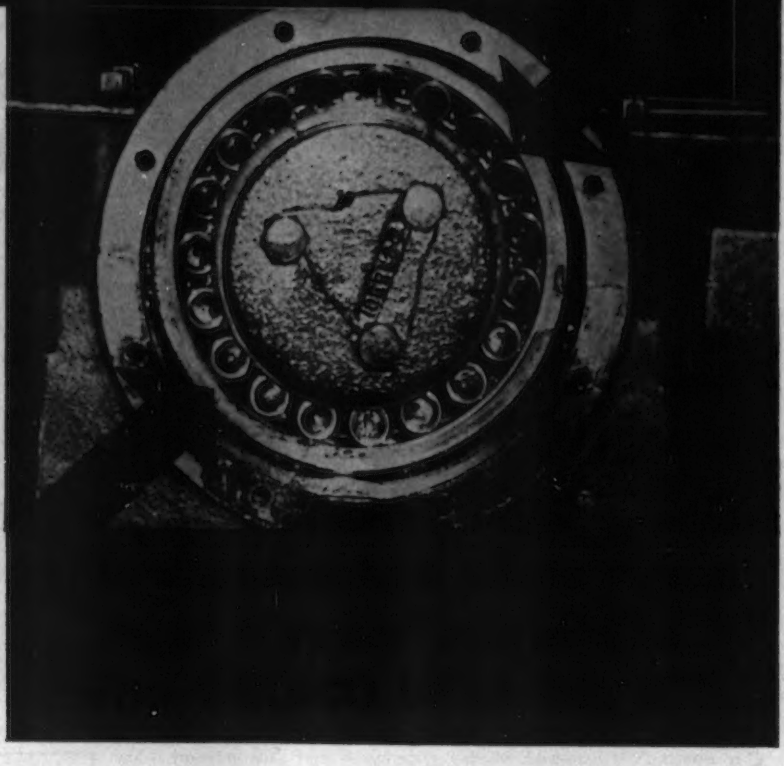

Dryer roll bearing after six years' lubrication with *Texaco Ursa Oil X***. Only two sections of this machine have roller bearings. Converted from a collar-oiled machine to a circulating system, it presented a difficult lubricating problem — return lines were too small and full of elbows and turns, bearings continually overflowed causing high oil consumption. But with *Texaco Ursa Oil X***, oil lines have been kept clear and full flow maintained, assuring much lower bearing temperatures. *Original batch of Texaco Ursa Oil X** — placed in machine in 1945 — is still in use!*

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FOR THE PAPER INDUSTRY

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ABC Paper TRADE JOURNAL ABP

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NEXT WEEK

WHO'S WHO AMONG THE SUPPLIERS

Who they are, Where they live, What they sell, Get to know them better.

REMEMBER THESE DATES

NOV. 26 to DEC. 1: 23rd Exposition of Chemical Industries, Grand Central Palace, New York, N. Y.

DEC. 2-5: American Institute of Chemical Engineers, Annual Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.

FEB. 19-22: American Pulp & Paper Assn., Annual Meeting, Waldorf-Astoria Hotel, New York, N. Y.

FEB. 20: Salesmen's Assn. of the Paper Industry, Annual Meeting and Luncheon, Waldorf-Astoria Hotel, New York, N. Y.

FEB. 18-21: Technical Assn. of Pulp and Paper Industry, Annual Meeting, Commodore Hotel, New York, N. Y.

MARCH 16-18: American Institute of Chemical Engineers, Atlanta Biltmore Hotel, Atlanta, Ga.

MARCH 24-26: The National Paper Trade Assn., Annual Meeting, Waldorf-Astoria, New York, N. Y.

MAY 5-8: Third Coating Conference of the Technical Assn., of the Pulp and Paper Industry, at the Sherman Hotel, Chicago, Ill.

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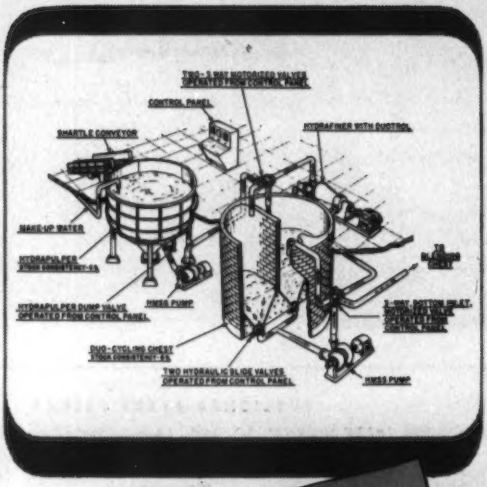
The HYDRAFINER is definitely the Key Machine of the modern refining system—and the truly modern system is the new Shartle Duo-cycling System—for kraft, specialty, liner and other grades where quality counts.

Mills interested in improving the quality of their grades will profit by investigation of Shartle HYDRAFINER Systems.



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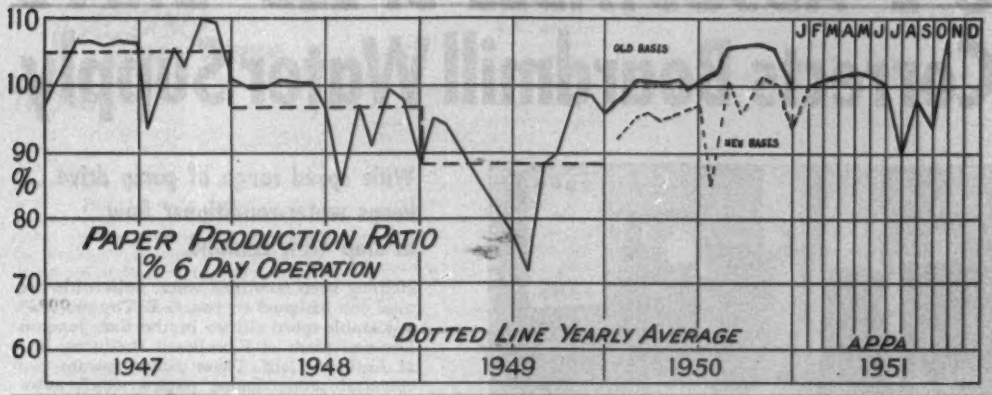
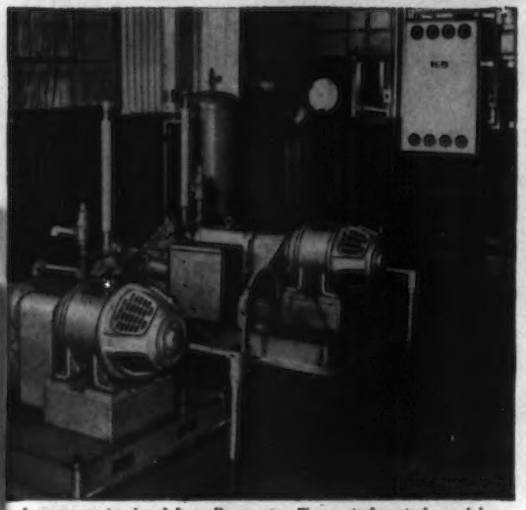


Brief of Important Figures

Source	Production	WEEK ENDING Nov. 10, '51	Oct. 13, '51	Nov. 11, '50
APPA	Paper Production Percent Capacity[3]	100.1	100.1	101.9
	Unbl. Kraft Paper Production Percent	105.0	95.9	97.3
NPA	Paperboard Operating Ratio Percent Inch Hours[4]	86	90	101
		Sept. 1951	**Aug. 1951x**	**Sept. 1950**
APPA	Paper Production[5] (Except Newsprint and Building Papers) ....Tons	821,000	894,388	766,000
	New Orders ....Tons	811,000	853,755	820,000
	Unfilled Orders ....Tons	986,018	986,263	932,750
	Shipments ....Tons	811,000	895,313	772,000
		[4]Oct. 1951	**Sept. 1951**	**Oct. 1950**
NPA	Paperboard Production ....Tons	1,055,647	816,356	944,672
	New Orders ....Tons	1,110,636	825,249	931,828
	Unfilled Orders ....Tons	487,788	458,150	694,741
	Our Customers Activities Index[1]	**Latest Mo.[6]**	**Previous Mo.[6]**	**Year Ago[6]**
FRS	Manufactures Total Index	230	234	221
	Durable Mfg. Index	272	267	249
	Nondurable Mfg. Index	197	190	198
	Chemical Products Index	304	301	265
	Mfg. Food Products Index	184	176	189
	Printing and Publishing Index	169	155	161
ODC	Magazine Advg.-Printer's Ink Index	376	368	341
	Retail Sales Combined Adjusted Index	381.1	372.0	369.3
	Drug Index	244.4	247.3	235.4
	General Merchandise Group Index	417.6	402.8	406.2
	Grocery and Combination Index	452.8	439.1	402.2
	Prices Index			
BLS	Consumers Price Index[1]	185.5	185.5	173.4
	Wholesale all Commodities[2]	178.0	179.5	166.4
	Wholesale Foods[2]	187.3	186.0	174.6
	Commodities other than Farm Products and Foods[2]	167.3	168.7	155.5
	Wholesale Pulp and Paper[2]	198.7	197.2	163.9
	Purchasing Power of Dollar, Consumers Prices[1]	53.9	53.9	57.7
	General Activity Index			
FRS	Mfg. Production-Worker Payroll	429.4	425.5	394.4
	Unemployment Compensation Initial Claims (M)	950	1,086	641
	Miscellaneous Carloadings-Thousands of Cars	1,533	1,454	1,574
	Electric Output (Million KW hr.)	37,510	35,435	33,943
PTJ	Average 32 P & P Common Stocks as of Nov. 17.	$38.23	$39.98	$33.96

[1] 1935-39=100 Unadjusted Index
[2] 1926=100
[3] New 6-7 day basis.
[4] For Five Weeks
[5] For details see APPA Monthly Statistical Summary—September 1951 Estimated Figures.
[6] Latest Month Available on Request
x Revised figures

G-E ADJUSTABLE-SPEED DRIVE Corrects Boardmill Water Supply



In response to signal from flow meter, Thy-mo-trol control panel (on wall) increases or decreases pump motor speed as required.

Wide speed range of pump drive keeps water-conditioner flow in step with demand.

Helping keep boardmill water uniform is the vital job assigned to two G-E Thy-mo-trol* adjustable-speed drives in the San Joaquin Division plant of Fibreboard Products, Inc. at Antioch, Calif. These drives operate two chemical proportioning pumps which automatically inject a chemical conditioner into process water in direct proportion to the amount of water being used.

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Do *you* have a quality control problem, the solution to which is dependent on having the right kind of adjustable-speed drive? Best way to find out is to mail the coupon below. *General Electric Co., Schenectady 5, N. Y.*

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ELECTRONIC SPEED VARIATOR—An electronically controlled version of the Speed Variator that offers most of the features of Thy-mo-trol for applications in the 15 to 60-hp range at moderate cost. Bulletin GEA-5336. Check here..... ☐

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Headquarters for ELECTRICAL ADJUSTABLE-SPEED DRIVES

GENERAL ELECTRIC

Paper TRADE JOURNAL

TRENDS

Office of the PAPER TRADE JOURNAL,
Wednesday, November 21, 1951.

A gradual decline in demand for paper and products is indicated from now to perhaps early January, most industry observers believe. After a spotty pickup, demand will then trail the diminished demand for boards, and decline to at least early next summer. The possible exception may be in the much-needed lightweight kraft wrappings which may get the lag somewhat later.

Inventory and Ceiling Price Factors

A contributing factor to the current buying lag is general evaluation of inventory position as the end of 1951 nears. In a number of states, floor stocks are subject to a State tax, and liquidation of heavy inventories usually occurs about December 1.

The naming of dollars and cents ceilings for papers, boards and converted items, also tends to curb the rush to stockpile. Particularly is this true because the tailored ceilings set prices at are about current levels. In some few instances, modest advances are authorized by OPS order; in others, minor rollbacks are scheduled. The net result of the new orders is to preserve the status quo.

No one expects that a general liquidation of amassed stocks will result. The consensus is that in states where floor stocks are taxable, these will be reduced to the end of 1951 and subsequently be rebuilt in early January. In other locales, inventories will, on the whole, be maintained as reserve, it is believed; and the normal needs of general business will be purchased on a buyer's market at close to ceiling levels. Which is to say that no price break is generally expected.

Summed up, it is affirmed that a fair volume of business is to be had in regular outlets and in channels opening up in advertising to support a buyer's market. But the time has arrived when energetic selling strategy is going to take a full day's work.

Reaction on Raw Materials

Reflex action of the buying lull on raw materials will, by early 1952, add up to a decided easing in buying pressure for market wood pulps, for cotton cuttings and chemicals, and to continued softness in waste paper substitutes.

Shifts in Wood Pulp Demand

The net result of the many rumors and reports about world wood pulp markets are these:

Most U. S. mills have inventories of allowable size, and are accepting contracted tonnages regularly to meet daily output. (See *Table 1* for a comparison of September inventories with those at the close of June, 1951. Overall gain is close to 56,000 tons.) Where output has been cut back by current market easing, these tonnages are becoming troublesome to their owners; and spots of market easing result as producer agents offer the monthly allotments to other regular customers.

True, the demand for bleached pulps continues strong, as it also is steady for most grades of unbleached sulfites and northern krafts. But caution is observed in buying, not only because of uncertainty of consumer demand for papers, but because a decided drop in world demand for pulp and paper is reported.

Pulp buyers therefore are becoming selective. They first want good pulps at U. S. ceilings; they are interested in good Canadian lots at present levels; and they want, in some instances, to keep a toe in the Scandinavian market, not only for special grades but because it could suddenly react to the reportedly receding demand of world markets.

World Market Prices Easing

What undoubtedly will be argued by some is the implied reaction of the market to supply and demand, a factor which is being thrown out of balance by Government controls of prices, inventory, usage, and export.

Under normal conditions, a mill could take advantage of a good buy for reserve stocks—a consideration not to be sniffed at with international conditions what they are. Or the producer could seek an export market for lots of pulp. That market is, however, under export license and quota. The NPA wants to keep the pulp within the country. The export market further is restricted by lack of dollars in some countries and by want of letters of credit for others.

Nonetheless, it is believed that a pronounced shift in market pulp price is in the making for sometime in 1952. Basic information is that the world markets of Europe, Asia, South America, etc., which have been gobbling up all offerings of Scandinavian pulps — whether at spot or at regular contract prices which are $100 in advance of U. S. ceilings — now are largely restricted by internal economic conditions. General reports are that the high costs of raw materials have eaten up all available funds and that papers and boards are priced out of buyer reach.

This is less applicable to U. S. and Canada than to Scandinavia, but France and Britain have already halted dollar imports of wood pulps along with other items.

Sweden Cuts U. S. Export Tax

Further to support the conclusion that the bloom is gone from world market prices is the Swedish cut in the U. S. export tax which reliable sources have checked. The slash becomes effective on fourth-quarter shipments, and amounts to a drop from 490 kronor to 200, or about $70 per long ton. On shipments to areas other than the U. S., the tax remains at 490 kronor, it is reported.

It is not to be interpreted, however, that a drop in price to this market will result. The additional kronor will mean a greater net return to the Swedish producer who still feels his European market is more interesting to him at $100 per ton over the U. S. price though the net return is less.

What does result is that the Swedish mills are in a position to dicker pricewise for the U. S. market as world markets recede and to compete with the Canadian price of $160 for bleached sulfite. This additional net also gives the Swedish mills incentive of about $62 per short ton to develop this market again to get the dollars which the Swedish Government also needs.

—E. P. N.

WOODPULP: U. S. PRODUCTION, CONSUMPTION, INVENTORIES, SEPT., 1951
(Tons of 2,000 pounds)

Grade	U. S. Production: Tons	U. S. Production: % of Base	Consumption in paper & bd. manuf.	End of Month Inventories: At pulp mills(*):	At pulp mills(*): For later sale	At paper & bd. mills: Sept. 1951(1)	At paper & bd. mills: June 1951
Total	1,326,720	89.7	1,423,923	104,441	29,064	496,564	439,939
Spec. Alpha & Dissolving	51,832	95.5	3,111	9,542	(2)	13,150	8,771
Sulfite, Total	195,591	87.5	253,745	28,339	8,871	196,432	180,572
Blchd. Total	135,973		160,018	17,161	5,890	81,475	77,661
Unblchd.	59,618		93,727	11,178	2,981	114,957	102,911
Sulfate, Total	688,711	93.3	738,296	27,445	7,527	210,070	183,642
Blchd. Total	151,820		190,453	12,986	5,479	102,564	93,372
Semi-blchd.	22,432		25,273	584		6,823	7,240
Unblchd.	514,459		522,570	13,875	2,048	100,683	83,030
Soda	35,762	72.4	40,586	1,526	633	14,593	12,092
Groundwood	197,026	85.1	222,713	32,531	2,911	52,869	55,503
All Others	157,798	86.5	165,472	5,058	9,122	62,319	n.a.

Based on Bureau of Census figures.

* Revised. (1) Preliminary. (2) Tonnages included in "All Others." n.a.—Not available.

Paperboard Production (Tons)*

	Nov. 10 1951	Nov. 3 1951	Nov. 11 1950
Production	209,154	207,910	233,487
New Orders	175,281	297,394	199,278
Unfilled Orders	450,811	487,788	739,323
% of Activity	86	85	101

* Source: National Paperboard Assn.

There's gold in Black Liquor

THE recoverable soda ash and sodium sulfide in black liquor is worth plenty to a paper mill . . . the trick is to refine out as much as possible, keep recovery costs at a minimum, and take full advantage of the waste as a source of fuel in the smelter . . . and Taylor Control can help you do it.

If the flow of black liquor isn't fast enough, production of the chemicals and steam is below maximum; if flow is too fast, water isn't completely evaporated from the liquor and it may be necessary to add fuel to the smelter to recover all the chemicals and burn the organic matter. The high percentage of solids in black liquor, and its high viscosity when cool, make conventional flow measuring devices impractical.

Taylor controls the flow by maintaining a constant level in a flow box between the disc evaporator and the pump to the smelter. The bulb of a FULSCOPE* Temperature Controller is placed at proper level in the flow box. When the hot liquor covers the bulb, the controller closes a valve on the liquor inlet. When the bulb is exposed to cooler air, the valve is opened.

*Reg. Trade-Mark

RESULT: Maximum recovery of usable materials—the gold in black liquor—at minimum cost.

Taylor Instruments can help cut production costs, protect product quality in almost every phase of paper manufacture, from pulp grinding and digesting to beating, jordaning, drying and calendering. Ask your Taylor Field Engineer, or write: Taylor Instrument Companies, Rochester, N. Y., or Toronto, Canada.

Instruments for indicating, recording and controlling temperature, pressure, flow, liquid level, speed, density, load and humidity.

Taylor's Centennial ACCURACY FIRST SINCE 1851

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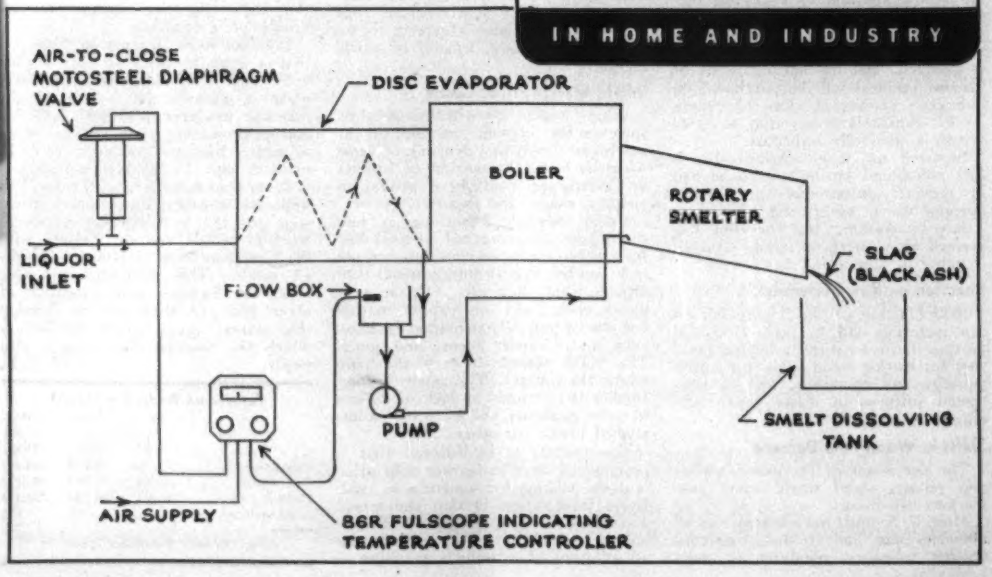


News of the Week

Paper TRADE JOURNAL

Hollingsworth Mobile Expansion Nears Completion

The expansion of the Mobile paper and pulp mill of the Hollingsworth & Whitney Co. is practically completed.

Officials, who were in Mobile to inspect the expansion work, made known that the local plant's paper and pulp making facilities have been increased 75 per cent and its bleaching facilities 150 per cent.

The additions to the Mobile plant which have been completed are already in operation. Only one unit of the new expansion remains to be completed.

The company does not plan any further expansion of its manufacturing facilities in the Mobile area, but it will endeavor to continue to develop its woodland resources in the Gulf Coast region.

Two American Writing Machines Sent To Mexico

HOLYOKE, Mass.—The National Blank Book Co. is moving its metal division from its present plant at Appleton street to the former Riverside mill of the American Writing Paper Corp.

Part of the area to be taken over by the National's metal division was formerly used by the two paper machines at the Riverside. The American Writing sold these machines to a paper mill in Mexico. They were shipped out several weeks ago.

Newsprint Consumption and Stock On Hand

Daily newspapers reporting to the American Newspaper Publishers Assn. consumed 405,277 tons of newsprint in October, 1951 compared with 420,786 tons in October, 1950 and 399,262 tons in October, 1949. This was a decrease under October, 1950 of 3.7% and an increase over October, 1949 of 1.5% with four Sundays in October, 1951 and five Sundays in October, 1950 and 1949.

Stocks of newsprint on hand and in transit at the end of October, 1951 were 41 days' supply for the average of all daily newspapers reporting to the ANPA. This is the same number of days' supply as the end of September, 1951. There were 33 days' supply at the end of October, 1950 and 38 days' supply at the end of October, 1949.

The total estimated newsprint consumption in the United States for October, 1951 was 529,774 tons which includes all kinds of uses of newsprint. For the first ten months of 1951, it is estimated at 4,863,282 tons. During the first ten months of 1951, the reporting newspapers used 3,720,411 tons of newsprint, a decrease of 0.4% under the first ten months of 1950 and an increase of 6.1% over the first ten months of 1949.

No Change in Monadnock New Hampshire Operations

BENNINGTON, N.H. — Approval of the $20 million bond issue by the residents of Elizabethton, Tenn., will not affect the New Hampshire operations of Monadnock Paper Mills. These will continue as usual, according to a spokesman for Monadnock.

The plant will be built with the proceeds of the bond issue and rented to the operating company for a reported $1,400,000 per year. Upon authorization of the bonds rental will be cut to $60,000 per year.

Progress Begins . . . With Paper

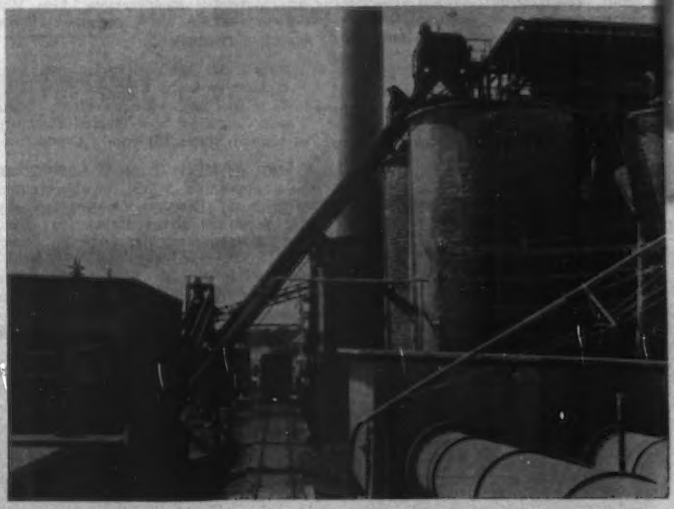
A bouquet to Dow Chemical Co., for its full page "ad" with the above caption. Appearing in Saturday Evening Post, November 10, it once again calls attention to the importance of this industry to our way of life.

Hudson Tests New Machine

Hudson Pulp & Paper Corp. next month expects to put into operation $10 million of new facilities at its Palatka, Fla., kraft mill.

In preparation for the opening, the company has begun test operation of what it describes as the "most modern paper machine in the country." This unit, together with new chipping and pulping equipment, approximately doubles the mill's present daily capacity of 200 tons and provides employment for an additional 600 workers, bringing the total working force to approximately 1,300. The new machine is an electronically-controlled unit designed to attain a theoretical speed of 2,000 feet per minute and is expected to operate in regular service at speeds up to 1,800 feet per minute.

Two additional Multi-Roll Controlled Flow Victory Beaters made by The Noble & Wood Machine Co. of Hoosick Falls, N. Y., have been installed. The two new triplex units are duplicates of the three-roll Victory Beater which was installed in Hudson's Palatka mill in August of 1949. The design of the Noble & Wood Victory Beater makes possible hydraulically controlled bedplate-to-roll pressures of up to 40 tons, continuous stock flow of up to 1000 gallons per minute and continuous daily



Chip conveyors at Hudson Pulp and Paper supplied by Stephens-Adamson Mfg. Co.

production of 200 or more tons for each triplex unit. In addition to the new Victory Beaters, The Hudson Pulp and Paper Corp. has also included four Noble & Wood Unifiners and nineteen Noble & Wood Propeller Agitators in its multi-million dollar bid to manufacture more of the world's finest kraft bag and wrapping papers.

Logs Roll From Interior To B. C. Coast

Following the precedent set by a North Vancouver firm which has begun receiving log shipments from the interior of British Columbia for the manufacture of pulp chips, Powell River's subsidiary, Kelley Logging Co., is using 58 specially built rail cars for a similar operation.

The cars have gone into the Cariboo region, centrally located in British Columbia, where they will be loaded with jack pine and spruce to be hauled over the P. G. E. Railway to Squamish. Here they will be boomed and towed to Powell River for the manufacture of pulp and newsprint. Shippers in Quesnel and Williams Lake think that they will be loading out about 9 or 10 cars daily.

Log supplies will largely be purchased from small operators and hand loggers. This will help to stabilize the general economy of the area.

India Bans Export Of Hemp Rope Cuttings

BOMBAY, India—A notification issued today by the Joint Chief Controller of Exports states that in view of the general shortage of raw materials required by the Indian paper industry for the manufacture of paper, it has been decided to control the export of old hemp rope cuttings, which constitute an important raw material for the manufacture of paper. With immediate effect, therefore, the export of old hemp rope cuttings will not be allowed. The item will be treated as a controlled variety of raw material for paper manufacture in the same manner as cloth cuttings, hosiery cuttings, jute rags, sabai grass etc.

The notification, however, adds that any consignments which may have already been tendered for export but have not actually been shipped will be allowed for export on production of satisfactory evidence of firm sale contracts. Also, applications for export against pre-ban commitments for which satisfactory evidence of sale is produced will also be considered and exports allowed in *bona fide* cases.

International Donates 50,000 Pine Seedlings

STAR CITY, Ark.—Fifty thousand pine seedlings are being donated by International Paper Co. to members of the Lincoln County Soil Conservation District.

H. L. Poulton

H. L. Poulton is now the advertising representative of PAPER TRADE JOURNAL and Lockwoods Directory in Cleveland-Midwest Territory with headquarters in Pittsburgh, Pa., at 610 Pennridge Rd. The Chicago-Midwest Area will continue to be serviced by H. K. Vinton from our office at 79 West Monroe St., Chicago, Ill. Mr. Poulton was for 13 years Advertising Manager of the Columbia Chemical Division of the Pittsburgh Plate Glass Co. He is a past president of the Pittsburgh Chapter and a director of the National Industrial Advertisers Assn.

PEOPLE

JAMES L. MADDEN, of Boston, is the newly elected president of American Forest Products Industries, Inc. Mr. Madden is president of the Hollingsworth & Whitney Co.

Mr. Madden succeeds N. F. McGOWIN, of the W. T. Smith Lumber Co., of Chapman, Ala., as president of the forest industry educational and informational organization. Mr. McGowin remains as a member of the board of trustees.

JOHN M. MEYER, vice-president, J. P. Morgan & Co., Inc. and G. WILLING PEPPER, vice-president, Scott Paper Co., have been elected directors of United States Plywood Corporation.

DR. RALPH T. NAZZARO has been appointed to the newly created position of Director of Research by the Westfield River Paper Co., Inc., and its subsidiary, The Glassine Paper Co. Dr. Nazzaro will make his headquarters in Russell, Mass., where the company has recently expanded its laboratory and research facilities to promote new developments in the field of glassine and greaseproof papers.

Before coming to Westfield River, Dr. Nazzaro was associated with Texon, Inc., in a similar capacity. He is experienced in both plastics and paper chemistry, having been Associate Professor of Forest Chemistry at the College of Forestry, University of Syracuse and recipient of a paper fellowship at The Mellon Institute of Industrial Research, Pittsburgh, Pa.

BENJAMIN B. LEVY of Waban, Mass., has been appointed sales manager for Rogers Corp. of Manchester and Goodyear, Conn.

Mr. Levy joined Rogers as manager of the Shoe Products Division in 1944, and will be in charge of ten field men in the East and Mid-West in his new position.

Other personnel changes resulting from an expanded sales program are: THOMAS JOHNSTON from Fabricating and Duroid Sales to manager of Market Development; GERALD MACKINNON from superintendent of the Goodyear Division to sales representative in the Cleveland Area; SOL BAKER from superintendent of the Fabricating Division to production manager of the Goodyear and Fabricating Divisions; FREDERICK J. JONES from Quality Control engineer to superintendent of the Goodyear Division.

ARNOLD E. HOYT, formerly superintendent of The Davis Paper Co., West Hopkinton, N. H., has been appointed assistant to the mill manager of the George O. Jenkins Co., Bridgewater, Mass.

HARRY A. THURLOW has been named resident manager of the Port Angeles, Wash., division of Rayonier Inc. Mr. Thurlow has been an assistant resident manager for the past year. He succeeds WILLIAM E. BREITENBACH, who left on October 31 for New York where he will be in the company's executive offices. He will be in charge of manufacturing.

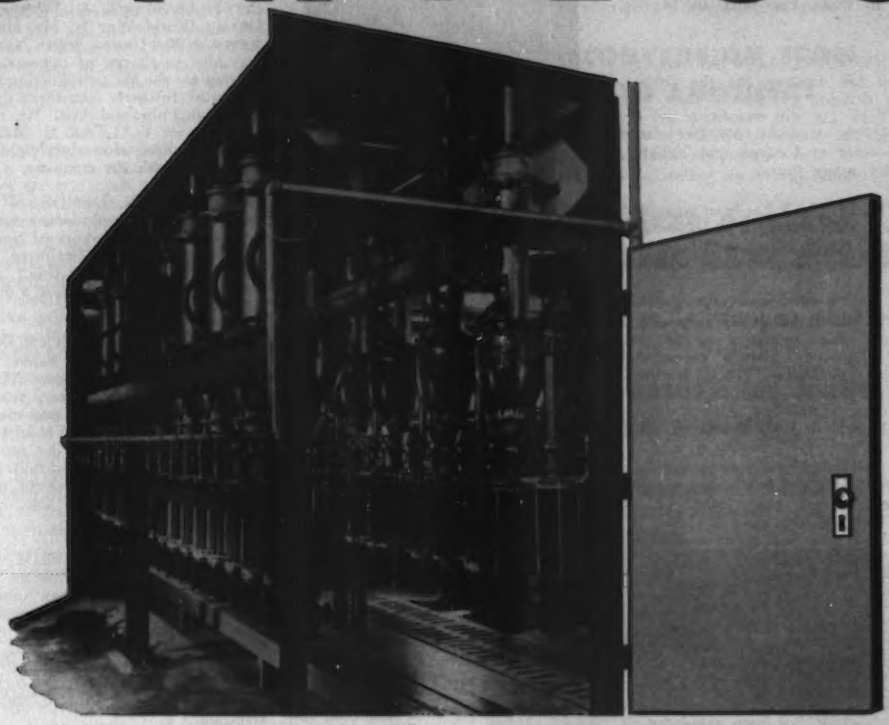
Mr. Thurlow joined Rayonier at Grays Harbor, Wash., in 1935 as a draftsman. He was later appointed assistant resident engineer at Grays Harbor, and in November, 1944, went to Port Angeles, Wash. In September, 1945, he was appointed resident engineer there, occupying that position until his last promotion in October, 1950.

THOMAS F. NOLAN, JR., who has been associated with Oxford Paper Co. sales in their New York offices since 1940, and who for the past four years has been manager of the Order Department, will move to Chicago. He becomes assistant Western sales manager of Oxford Paper Co. and assistant manager of sales of Oxford Miami Paper Co., and will be under Oliver S. Barrie, Western sales manager and manager of sales, respectively, of the two companies.

SAMUEL D. DILLON, who has been closely connected with the company's Mid-Western sales operations for the past twenty-two years, has been appointed Chicago sales manager.

JOHN S. PARSONS, a member of the Chicago sales staff, will also assume additional responsibilities. He has been associated for the past ten years with Oxford Paper Co. in their New York offices and for the past four years in their Chicago offices.

DIRTECS



– the main *Entrance* for clean papermaking fibres

– the main *Exit* for dirt . . .

Everywhere, Dirtecs are doing a great job of taking the dirt out of today's extra dirty stock. They collect the dirt and get it out of the system for good and all. They are readily adaptable to all kinds of variations in volume of stock, character of stock, volume of dirt, character of dirt. They are easy to operate and maintain.

BIRD MACHINE COMPANY

SOUTH WALPOLE • MASSACHUSETTS

M. B. HOUSTON, formerly Northwestern Representative of Rayonier Incorporated, has been appointed assistant to the president. Mr. Houston, who has ben associated with the company for more than 21 years, will continue to make his office in Seattle, Wash.

KENWOOD DIXON has been appointed art director for the folding carton division of Robert Gair Co., New York. He will coordinate art efforts for the company. Mr. Dixon was art director at Kenyon and Eckardt, Inc., for many years.

JOHN BUTLER has been appointed Southern sales manager of Union Bag & Paper Co with offices in Atlanta. He was formerly district sales manager there.

CHANDLER H. JONES has been appointed sales manager of the National Container Corp.'s corrugated box plant at Dallas, Texas. National Container Corp. is building a new $1 million corrugated box plant at Pierce and Glenfield in West Oak Cliff, Dallas.

CRAIG MOORE has been appointed Middle Atlantic sales manager of Dixie Cup Co., replacing RALPH W. McCLURE who will be on special assignment. In addition, WILLIAM PEARLMAN has been made Boston Territory manager and GERALD E. BEATTY, manager of Newark Territory. T. J. WEAVER has been assigned to special duties with the Sales Training Department.

H. P. BURBANK, former assistant to Dr. Hanson, has been appointed to the position of manager, Personnel and Public Relations of Brown Co., Berlin, N. H. Mr. Burbank started in the Research Dept. in 1925 and has worked in various capacities including office manager, supervisor of salaried personnel and assistant to the director of company relations.

W. L. GIVEN has been promoted to manager of Industrial Relations. He started with Brown Co. in 1922 at the Bermico plant, and has worked in several different position including personnel and industrial relations.

EUGENE O. HANSON, former New England representative of the Paper Sales division has been promoted to assistant manager of the Paper Division. He started as a clerk in the Pulp Sales division in Portland in 1925.

LAURENCE F. WHITTEMORE, Brown Co. president was among the 545 American business leaders from 42 states and the District of Columbia who were recently named to 34 committees of the Chamber of Commerce of the United States.

L. E. Charles

B. H. Rieger

LEO E. CHARLES, celebrating his 50th anniversary in paper, was elected a director and chairman of the board of Anglo-American Paper Co., Ltd. and of its subsidiary companies, Victoria Paper & Twine Co. Ltd., the Garden City Paper Mills Co. Ltd., and Canadian Vegetable Parchment Co. Ltd. B. H. RIEGER was elected president of Anglo-American and the subsidiaries, and is also a director of the firm.

Elected as directors as well were RICHARD CARROLL, H. L. CHAPPELL and MALCOLM McSPORRAN. Mr. Carroll became vice-president and general manager of the Garden City Paper Mills Co. Ltd., and of Canadian Vegetable Parchment Co. Ltd. Mr. McSporran has been named secretary-treasurer of the three subsidiaries, and Mr. Chappell takes the posts of vice-president and general manager of Victoria Paper & Twine Co. Ltd.

Mr. Rieger, in announcing the election of the latter three men as directors, indicated that the moves were the result of expansion within the organization. The newly-elected president said that immediate expansion plans include three new warehouses for distribution and a program of modernization at the two mills.

NORMAN W. WILSON, president of the Hammermill Paper Co., Erie, Pa., celebrated his 50th anniversary with the firm on November 9th. He joined Hammermill as an office boy on leaving school and rose steadily to become head of the organization.

CURTIS M. HUTCHINS, Bangor, Maine, has been elected a director of the Hollingsworth & Whitney Co. During World War II, Mr. Hutchins served in the United States Navy and was also in charge of pulpwood production for the War Production Board. He was formerly president of the American Pulpwood Assn. Mr. Hutchins succeeds WALTER B. MERLIN who has retired after sixty-eight years of service with the company.

CHARLES W. DEEDS, of Hartford, Conn., has been elected chairman of the board of directors of Specialty Converters, Inc., East Braintree, Mass., manufacturers of waterproof papers since 1919. Mr. Deeds is also a director of The Mead Corp.

A. VERNON SHANNON of Princeton, N. J., was named vice-president, RALPH B. ALLEN, formerly assistant treasurer, treasurer; ROBERT B. THOMAS was made assistant treasurer, and WILLIAM F. WALSH of New York City, secretary and counsel of the corporation. Douglas E. Donovan, vice-president, and A. Vernon Shannon were also elected directors.

GEORGE H. GERPHEIDE, formally president of the Hawthorne Paper Co., Kalamazoo, Mich., has joined the Paper Corp. of United States and is now Western Manager, with offices located at 224 Eleanor street, Kalamazoo, handling the sale of their complete line in that territory, including papers marketed by the E. de Vries Division.

Mr. Gerpheide has been in the paper manufacturing business in Kalamazoo all his business life and president and general manager of the Hawthorne Paper Co. for a number of years.

George A. Farrah

GEORGE A. FARRAH has been appointed assistant to the vice-president of National Container Corp., to handle the converting plants in the Wisconsin and Minnesota area.

(Continued on page 35)

MEXICAN NOTES

Héctor Sáenz, managing director of the sugar mill called "Xicotencalt," located in Tampico, Mexico, has announced plans to construct a paper making plant to produce newsprint from a mixture of 70 percent cane pulp and 30 percent of waste pulp of *otate* which is found in abundance in the zones of Tamazunchale and Valle. Technicians hold that the quality of the resultant product will be excellent. The capacity of the new plant will be 20 tons daily, it is reported.

* * *

Book publishers specifically and printing firms producing booklets, catalogs, etc., have expressed approval of the Mexican government's move to subsidize paper imports up to 75 percent as a measure to offset the scarcity of book paper needed for editorial and commercial printing.

Leaders of the graphic arts industry believe that the government subsidy will alleviate in part the abuses of the paper trade. It is true that suppliers of paper have had to face constant increases in cost of paper, but they also have been guilty of passing on the increases to consumers of paper to the point that printers have been sorely taxed to meet the prices.

The National Assn. of the Paper Industry has defended the position of its associates, but printers point out that price increases have gone up more than 200 percent in the last few months.

The subsidies in effect are not solely granted to importers but also to paper manufacturers in the country. It is hoped that the latter, aided by the government, will be able to reduce the prices of paper and thus end the bitter accusations of paper users.

Printers had charged that paper suppliers took the Korean war as an excuse to flagrantly overcharge consumers.

* * *

Importation of newsprint and all other types of paper have been placed under the direct control of the Department of National Economy in Mexico, according to official publication in the Diario Oficial (Official Gazette). This move has been made to coordinate the importation of paper with the granting of government subsidies to keep prices down on this all-important import.

The controls, it is further stated, will assure newspapers, magazines and commercial printing shops sufficient raw material to prevent non-publication or limitations on size or volume of publications. The measure also complements efforts made by Secretary of National Economy Martinez Baez, and publisher of Mexico City newspapers, who recently visited Canada to obtain increases in newsprint quotas for Mexico.

Mexico, according to official estimates, is expected to import approximately 54,000 tons of newsprint this year and in 1952. This is considered sufficient to meet the country's demands and allow for a small carryover.

* * *

The Department of National Economy revealed that Mexican newsprint imports for the first seven months of this year totaled 27,257 tons with a value of $25,625,000 pesos. This total reached despite the fact that April figures showed a decrease of 990 tons over corresponding 1950 totals. Indications are that imports will now increase as a result of Secretary Martinez Baez trip to Canada to gain larger quotas of Canadian paper.

The official figures show that Mexico imported 52,803 tons in 1947; 58,040 tons in 1948; 55,456 tons in 1949. In 1950 there was a major decrease with imports totaling only 36,000 tons, representing a drop of 32 percent compared with 1947, 42 percent with 1948 and 35 percent with 1949. Now, it is expected, the upward spiral will be resumed again.

ONE BASIC PUMP SERVES TWO DIFFERENT NEEDS

This heavy duty, single-stage, single-suction pump handles pulp stock and acid or liquor . . . easily converts to meet production changes or replacement needs.

QUICK CONVERSION FROM ONE JOB TO ANOTHER!

Converts from pulp stock handling to acid-liquor service by merely changing a few pump parts. For hot service, a water-jacketed stuffing box is easily added.

SMALL NUMBER OF SPARE PARTS SERVES MANY PUMPS

By standardizing on these pumps, you also economize on spare parts—a small number of interchangeable parts protects a large number of pumps.

EASILY REPAIRED WITHOUT DISTURBING PIPING

Dismantling is simple. Entire bracket, rotating element and pump cover can be unbolted and lifted free from the case without disturbing suction and discharge piping.

STANDARDIZE ON THE BJ PULP PUMP

for pulp stock and acid or liquor handling

Byron Jackson Co.

Since 1872

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OFFICES IN PRINCIPAL CITIES

For full details, write for Bulletin No. 48-9000

GOVERNMENT GOSPEL

Compensate Foremen and Supervisors

The Salary Stabilization Board issued a general order aimed at equitable compensation for foremen and supervisors and wage earners. Under a policy regarding a regularly extended work-week, an employer may pay a foreman or supervisor in comparable position, additional compensation without approval of the Office of Salary Stabilization.

An employer who on or before January 25, 1951, had a practice or plan of paying foremen and supervisors additional compensation for work in excess of a normal work-week may continue with the plan.

This salary order covers only compensation for regularly extended work-week. A separate order relating to permissible differentials to maintain historical relationship between foremen and supervisors and the men they supervise will be issued within a few days.

Structural Steel Allotments

For the first quarter of 1952, Pulp Paper Paperboard Division had no stated requirements and no allotment of structural steel. General Industrial Equipment Division, of which pulp and paper machinery manufacturing is a part, had 82,163 tons stated requirements to which 70,000 tons or 85 percent was alloted.

Water Treatment Equipment Delayed

WASHINGTON, D. C. — Few orders for industrial water treatment equipment can be filled in less than 9 months, an industry advisory committee reported to NPA this week. Special specifications, involving undue amounts of scarce materials are a hampering factor, it was reported. By classifying custom-built, complicated design tanks as Class A products, it was pointed out, controlled materials acquisition would be facilitated.

Wage Regulation Questions and Answers

The Wage Stabilization Board has issued an extensive set of questions and answers pertaining to its General Wage Regulation 14, which governs the payments of bonuses.

The questions and answers are meant to clarify the Board's intent as to the details of the bonus regulation. The bulletin will be especially helpful at this time to many employers throughout the country who customarily pay annual bonuses to their employees at Christmas time or at the end of the calendar year, although it will be equally applicable to other employers.

The questions and answers explain how an employer who has paid bonuses, in accordance with a specific plan or otherwise, may continue to pay bonuses. The questions cover bonus payments to those employees under the jurisdiction of the Wage Stabilization Board, and do not apply to executive, administrative and professional employees under the jurisdiction of the Salary Stabilization Board.

WSB officials also said they have received inquiries about whether or not specific Board approval would be necessary for employers to give their employees a holiday the day before Christmas and New Year, both of which fall this year on Tuesday. If the employer has given his employees the day off just before a holiday in the past, officials said, he may continue to do so without prior Board approval.

NPA Names Strattner

WASHINGTON, D. C.—Lawrence W. Strattner, of Mount Vernon, N. Y., Administrative Vice-President of West Virginia Pulp and Paper Co., New York City, has been named deputy assistant administrator of the NPA Chemical, Rubber and Forest Products Bureau, succeeding Gabriel J. Ticoulat, recently named to a new post in the Defense Production Administration.

Newsprint For Greece and Yugoslavia

WASHINGTON, D. C. — Newsprint procurement to be divided between the United States and Canadian supplies, and totaling $128,000, was authorized by ECA this week.

The authorizations included $100,000, for Greece, to be obtained from the U. S. and Canada; and $28,000, for Yugoslavia, from Canada.

Issue Sulfur Limitation Order

WASHINGTON, D. C.—Sulfur inventories are now limited to a 25-day supply under an NPA order last week.

Based on current conditions, nationwide inventories of sulfur are down to an average 40-day supply, the agency reported. By cutting the limit to 25 days, it was pointed out, sulfur producers can meet NPA directives calling for supplies to those users with less than 25 days' stock on hand.

Production is currently falling short of even the regulated demand, said NPA, by about ten percent. In addition, serious dislocations in distribution have occurred in recent months, with some holding as much as 90 days' supply against five to ten days for others.

Pigments Manufacturers Ask Price Adjustment

WASHINGTON, D. C. — Organic and inorganic chemical pigments manufacturers want OPS authority to add post-Korean war raw materials costs to their prices.

Increased costs of sodium tunstate, molybdenum and lead, would be reflected in prices of all shades of chrome greens, tungstated pigments and chrome yellow-orange. Manufacturers are now pricing under CPR 22.

Raw materials price hikes cited by industry members to OPS include the jump in sodium tungstate from $2.25 per lb. as of March 15, 1951 to $3.15 currently and molybdenum from 55 cents to $1.05 per lb. Manufacturers favor a revival of the old OPA Revised Maximum Price Regulation 180, which fixed dollars and cents ceilings on organic and inorganic pigments.

Meanwhile, at the NPA an industry advisory committee working with that agency recommended a broadening of the approved end-use of tungsten pigments, now allocated only for printing ink; they also asked NPA to try for some estimate of military demand for zinc chromate, chromium oxide, medium chrome yellow and yellow iron oxide; they recommended against any change in present ceilings percentage limits on use of lead chromate.

The NPA advisors head a summary from the agency of the supply situation in a number of basic raw materials used in the industry, as follows:

Sulfuric acid—continued short supply; lead, same; tungsten, little likelihood seen for any increase in amount used for pigments; molybdenum, supply improving and will be slightly higher in December; bichromate, demand not greatly above supply and better than it was several months ago; number of factors hampering increased output, shortage of sulfuric acid, chrome ore.

Coal tar intermediates—no particular shortage seen in dye stuffs, lake colors and acid colors; phthalic anhydrides, alkyd resins and phenol tight.

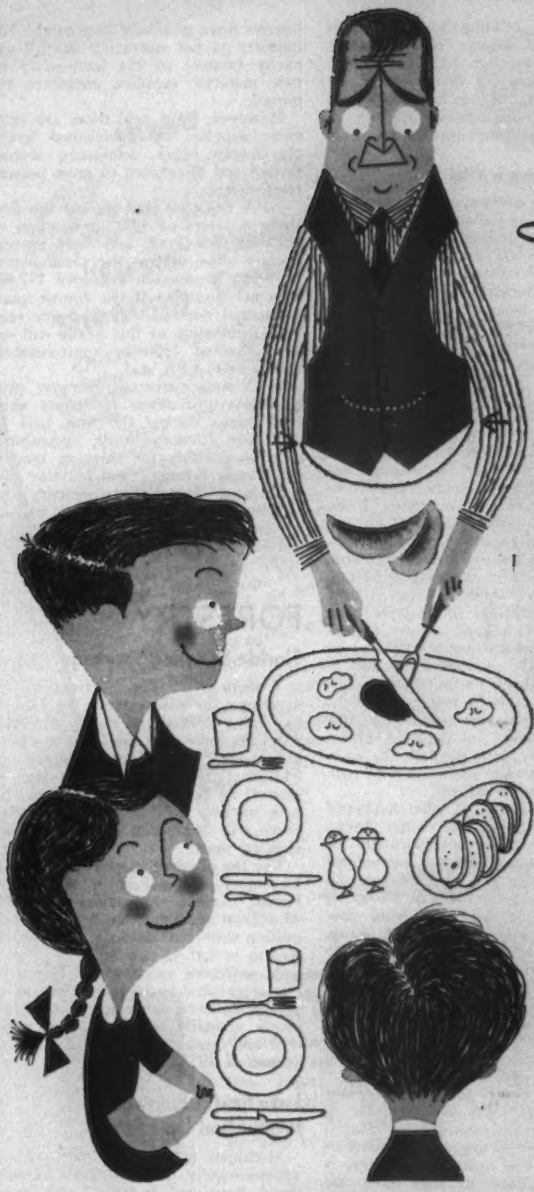
Newsprint Forecast

WASHINGTON, D. C. — Newsprint supplies will continue scarce in 1952, publishers have been informed by the National Production Authority.

Conferring with the Newspaper Industry Advisory Committee, NPA officials said, however, that "unless there is some unforeseen change, production is expected to continue to gain. It was estimated that North American production of newsprint in 1951 will total 6,600,000 tons, compared with 6,200,000 in 1950; estimates of emergency requirements of friendly foreign nations are expected to amount to between 40,000 and 50,000 tons of newsprint in the first six months of 1952.

In this connection, and since the meeting, the State Department has, in effect, denied published stories dealing with supposed U. S. government allocations of newsprint abroad. The Department's official comment was:

"The Department of State ships no



Stainless must go a long way, too!

To meet the demands of national defense and civilian needs, stainless must go a long way. That's why, now, more than ever — if you use stainless — use it wisely and efficiently.

Stainless is a name given to a broad list of grades and finishes—therefore, careful selection of the best available materials for your job is of prime importance. Here Crucible, a pioneer in the development of stainless steels, can help you get the most out of your share of stainless stocks through the unparalleled experience of our metallurgists and stainless fabricating specialists.

And when you can't get the grade of stainless you need, Crucible technical personnel can give you sound advice on the best available materials.

Until the time when stainless is more freely available . . . stretch your supplies of stainless. To do this . . . make use of Crucible's wealth of stainless steel experience.

CRUCIBLE first name in special purpose steels

51 years of Fine steelmaking

STAINLESS STEELS

CRUCIBLE STEEL COMPANY OF AMERICA, GENERAL SALES OFFICES, OLIVER BUILDING, PITTSBURGH, PA.

STAINLESS • REX HIGH SPEED • TOOL • ALLOY • MACHINERY • SPECIAL PURPOSE STEELS

newsprint overseas except the small quantities required for its own information activities. All International allocations are arranged by the 14-nation Pulp and Paper Committee of the International Materials Conference of which the United States is a member. Four of the countries mentioned in the article, Turkey, Italy, Egypt and Lebanon, have received no allocations of newsprint at all. A lot of 450 metric tons has been allocated to Pakistan but has not yet been received.

"An allocation of 2,250 metric tons has been made to India but the cargo has not yet been shipped."

Since organization of the Pulp and Paper Committee of the IMC in April, 1951, said the department, it has allocated a total of 27,500 metric tons of newsprint to the following countries: Brazil, Chile, Dominican Republic, France, Germany, Indonesia, Nicaragua, Spain, Uruguay, Yugoslavia, Greece, India, Malaya, Singapore, Pakistan, and the Philippines.

Returning to the NPA conference, the agency estimated some 500 tons will be needed to provide for distress applications in this country in the current quarter, which it is expected, will be taken from the publishers' common pool. The NPA said it is too early to report on the so-called "Boston Plan" conservation project (a publishers' agreement to limit press runs as a conservation measure) since this plan was started November 1.

Structural Steel Allotments

WASHINGTON, D. C. — Controlled Materials — First quarter 1952 structural steel allotments will be substantially the same as for the current period; announcement of structural steel allotments for industrial expansion is expected in the near future.

A breakdown of first quarter, 1952, allotments shows that the pulp, paper and paperboard division of NPA furnished no stated requirements and no allotment is being made. The same is true of the containers and packaging division, chemicals, and a number of others.

NPA "clinics" are being set up for assistance to manufacturers whose allotments of scarce materials have been sharply cut in the coming quarter. These centers will bring together the firms concerned, government purchasing officials, holders of prime contracts and large civilian producers, in a move to exploit subcontracting opportunities. The clinics will operate in approximately 20 cities to be named, with dates and places, later.

An Office of Aluminum, headed by Samuel W. Anderson, WPA official of World War II, and investment and industrial executive, has been established within the Defense Production Administration, to assist in furnishing adequate aluminum for defense and essential civilian requirements.

Among other functions the office will review for purposes of consultation, matters relating to distribution of soda ash, caustic soda, sulfuric acid, coke, fluorspar, etc., and expansion of facilities for their production; also review of Defense Electric Power Administration actions looking to power for aluminum production.

The Scrap Drive Is Vital

Inventories of heavy iron and steel scrap at the nation's steel plants and foundries are dangerously low. Supplies on hand are fluctuating between days and only a few weeks as compared with normal, safe-working inventories of about 60 days, according to Robert W. Wolcott, chairman of American Iron and Steel Institute Committee on Scrap Iron and Steel.

More than 1½ billion tons of steel are now in use in the United States. Normally millions of tons of this steel are discarded each year and find their way back to the mills as scrap.

During World War II, however, between 110,000,000 and 120,000,000 tons of steel were shipped overseas. Little of the amount which became scrap has been returned to this country. Moreover, steel production in 1951 has been rolling along at an unprecedented rate of more than 104,000,000 tons a year — about 10,000,000 tons above peak World War II output. These factors have combined to temporarily disrupt the scrap cycle — steel from mill to product and back to mill again.

This cycle must be restored quickly, not only to maintain production now but also to build up depleted inventories to carry mills through the coming winter months when seasonal collections normally fall off.

Here is a sample of what happened during World War II when industries which would not normally be thought of as producing a big volume of scrap really got to work on the job. The Eastman-Kodak Company normally would not have been considered a prime producer of scrap. During one of its scrap drives, however, Eastman found 88 carloads of dormant scrap around its plants within a 3-month period. Ever since that experience, the Eastman Company has had an alert procedure of removing obsolete equipment from inventory on a regular basis.

Countless other tons of dormant iron and steel scrap are available in various areas of the United States. Their presence is urgently required at the nation's steel mills if production is to be maintained to help meet the greatest combination of military-civilian requirements any country's steel industry has ever faced.

Paper Shipping Sack Production

Production of paper shipping sacks in 1952 will be sufficient to meet all normal requirements, the Paper Shipping Sack Industry Advisory Committee has informed the NPA.

The committee said demands have eased only slightly since May. They also reported that inventories and deliveries have generally improved. The industry is not operating at full capacity because of the inadequacy of raw material supplies, members reported.

However, NPA said there are sufficient supplies of unbleached kraft, clay-coated paper, adhesives, sewing thread and filter cord to meet present requirements.

NPA reported that during the first three quarters of 1951, production of shipping-sack kraft was four percent greater than during the same period in 1950. Production averaged 197,400 tons per quarter. If the fourth quarter output continues at the same rate, 1951 production of this grade will exceed that of 1950 by approximately 34,800 tons, NPA said.

NPA anticipates no increase over present requirements for paper shipping sacks during the first half of 1952 for direct military, agricultural (except possibly for shipping non-fat dried milk powder) and building material uses. The chemical industry's requirements for sacks probably will increase as this industry brings its expanded facilities into operation, NPA said.

FORESTRY

Florida Seedling Shortage

TALLAHASSEE, Fla. — Demand for seedlings for reforestation in Florida has far exceeded the supply available from the two state nurseries operated at Olustee and Munson, hence the Florida Forest Service is planning to expand its facilities for next year. No new nursery will be established, but there will be larger plantings at the existing ones.

For the planting season beginning in December and ending in March, the Forest Service was asked to supply 43 million seedlings, but only about 25 million were grown. As a result orders had to be cut 45 percent.

At a recent meeting the Board of Forestry voted to increase the size of the two existing nurseries to 50 million plants annually. However, full relief will not come until the fall planting season of 1953.

Lake States Pulpwood Production Up

Michigan produced 35 per cent of approximately 1,872,000 cords of pulpwood harvested in the Lake States forest during 1950, according to a U. S. Forest service report.

Hundreds of cords of pulpwood were produced in the Ottawa National forest. Minnesota produced 40 per cent of the regional pulpwood total and Wisconsin, 25 per cent.

Although pulpwood production was substantially increased over the 1949 output of 1,552,000 cords, it did not reach the high yearly average of 2,150,000 cords attained from 1946 through 1948.

these Clark-Aiken "Firsts" Slash Sheeting Costs . . .

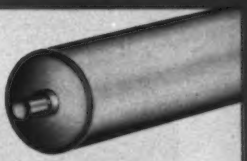
Clark-Aiken engineers went "all-out" in designing the new, complete line of Clark-Aiken Cutter-Layboy Units to get sheeting costs down to rock bottom.

All long-popular, cost-cutting, quality-improving Clark-Aiken features have been retained — adjustable lead-in rolls to remove wrinkles in the sheet, infinite sheet length range accurately maintained, infinite paper travel speed, ball-bearing shearing type slitters, adjustable-speed take off tapes to prevent tearing (on most models) and the exclusive self-sharpening scissors-action Clark-Aiken "Spiral Shear" cylinder knife that cuts clean, sharp edges on any stock. In addition, the new features illustrated have been added to further increase their all-around operating efficiency, economy and accuracy.

With a choice of conventional, overhanging-type or Vickery-type layboy, there's a Clark-Aiken Cutter-Layboy Unit *exactly* suited to your sheeting job. Write for bulletins. The Clark-Aiken Company, Lee, Massachusetts.

Oversize Pinch Rolls for More Positive Grip

Up to 18% more gripping surface for positive feed.

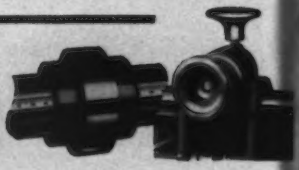


Larger, Sand-Blasted Draw Rolls — Prevent Slippage

Greater gripping surface—non-slip action.

Lifetime Tapes End Tape Troubles

Wear indefinitely; stretch less; eliminate shutdowns.



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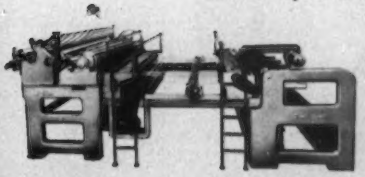
Sheet accurately aligned without use of measuring tape.

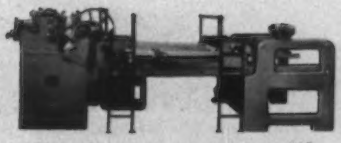
Unit Construction for Smooth Operation, Less Brake at High Speeds

Cutter, delivery, layboy coordinated for unit operation. Heavy cast frames, anti-friction bearings throughout for sustained accuracy at high speeds.

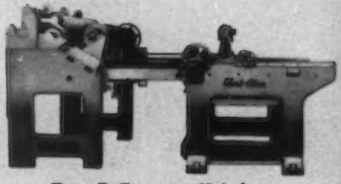
The Complete Line — a unit exactly suited to your sheeting job



Type H Simplex or Duplex for high speed, heavy duty work. 76" — 220" Conventional, overhanging or Vickery delivery.

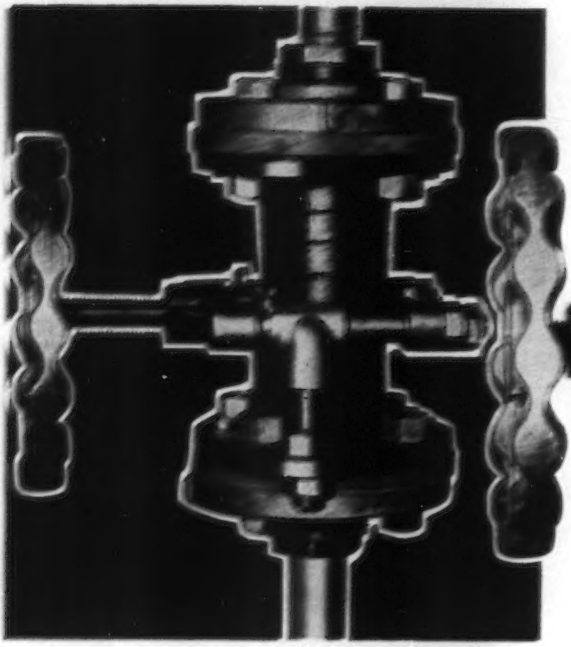


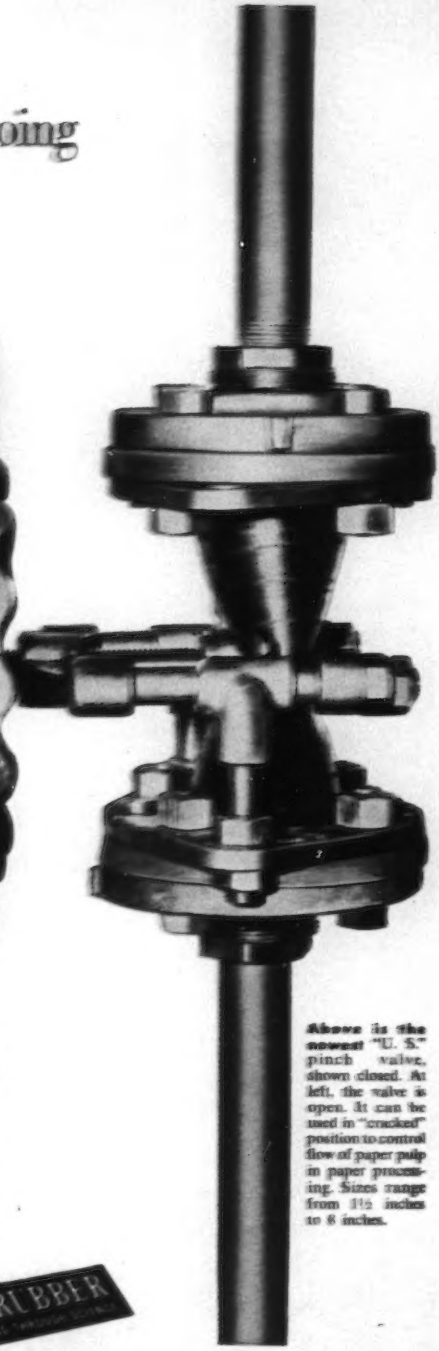
Type C for extreme accuracy. 76" — 124" Conventional, overhanging or Vickery-type layboy, with or without overlapping delivery.



Type D Economy Unit for finishing room service. 36" —100".

What's U.S. Rubber doing with pinch valves?





United States Rubber is squeezing out new production economies with its latest pinch valve. Designed for pipe lines carrying abrasive or corrosive mixtures, the valve eliminates "water hammer", breaks up galvanic action in pipe lines.

The valve reduces replacement costs because it can be refitted to new valve bodies. No packing or repacking is needed. Its design is very compact, with mechanism, retaining rings and pinch valve body in a single unit—an advantage where space is limited. The valve is available in neoprene for oil-resistance, or butyl rubber for high heat and severe acid conditions, or pure gum stock for food and beverage conveyance. Write to address below.

Above is the newest "U. S." pinch valve, shown closed. At left, the valve is open. It can be used in "cracked" position to control flow of paper pulp in paper processing. Sizes range from 1½ inches to 8 inches.

PRODUCT OF U.S. RUBBER

UNITED STATES RUBBER COMPANY

MECHANICAL GOODS DIVISION • ROCKEFELLER CENTER, NEW YORK 20, N. Y.

Problems Relative to High Speed Kraft Paper Machines*

J. A. McDermott

St. Regis Paper Co.

When your committee honored me by an invitation to speak at this meeting, it was suggested that the subject be related to problems in high speed kraft machine operation. I hardly know where to begin, as we do of course have plenty of problems and they certainly are becoming more critical as we approach speeds around 1600 F.P.M. Progress in paper making in the past few years has resulted in the development of higher speed machines. The high speed kraft machine of today is usually built and designed for speeds ranging from 500 to 2000 F.P.M. This has mostly come about by progress in development and design of head boxes, suction rolls, simplification of press arrangement, and the entire machine has been balanced to operate at these high speeds. In the past couple of years some pick-up arrangements for transferring the sheet from the wire to the 1st press felt have been in use, the general acceptance of this pick up has been retarded by certain physical faults that appear to be nearing a solution. I would say from a comparison of the 1000 feet per minute speed of 8 or 10 years ago with the maximum speeds we know today, it is apparent that in the next 5 to 8 years the speed of paper machines will increase perhaps 200 to 300 feet per minute. This, of course, is dependent on how soon we as operators can work out some of our problems and just how much courage we have to pioneer in new ideas and designs.

Most of my experience with high speeds has been on specification kraft for multiwall bags. We are confronted with a problem here at times which bothers machine operation. Our first problem of course is to meet specifications, and in order to do so there are times that the formation on the wire is such that it creates more of a sticking condition at the couch roll than at other times. We have found that a free kraft sheet that is high in machine direction tensile will take off at the couch with less sticking. We are also confronted with the fact that we have to prepare stock to meet specifications in the finished sheet rather than for machine operation.

As you know one of our big problems when we started to approach speeds over 1400 F.P.M. has been the delivery on the wire from the slice. There has been quite a lot of development along this line, both in open and pressure type head boxes, in the past few years.

We have been operating with a totally enclosed pressure type head box at Tacoma for the past 2½ years, and have reached speeds up to 1600 F.P.M. The case of the pressure type head box, I believe, will be improved by the use of deaerating equipment, which in one form at least is now operating in the industry. The open type head box lends itself to most conditions, but I am afraid it is rapidly becoming a thing of the past, especially on the high speed machines.

I may be sticking my neck out on this next statement as there no doubt are some groundwood men present here this afternoon.

We feel that our problem of attaining speeds over 1600 F.P.M. on kraft is much greater due to the large volume of water we have to handle on the wire in forming a kraft sheet. These large volumes of water, of course, are necessary to keep the fibres suspended during the flow from the fan pump to the slice lip. As we all know the principal job of paper making is handling the water after we once get it onto the wire. If the head box has fulfilled its mission of dispersing the fibres in the water across the width of the machine, the next step is to remove this water as quickly as possible, consistent with the character of the sheet to be formed. Most machines, and particularly those operating in the higher speed ranges, use some type of forming board that is placed as close to the breast roll as possible. The forming board, adjusted to the underside of the wire, serves the purpose of uniformly scraping the water from the wire, and it serves the further purpose of supporting the wire at a point where the weight of water is heaviest. We have also been using a special type deflector between the first 3 or 4 table rolls after the forming board to keep the sheet from raising on the wire as it leaves the slice lip. This deflector is approximately two inches wide at the top and is adjusted so that the wire is in contact with it.

In the past few years there has been a tendency toward the use of 12" or 14" wide suction boxes for high speeds. It is my opinion that this is not necessary. If the first three, which are the wet boxes, are large enough to take care of the volume of water, then the balance or the dry boxes could be 6" or 8" wide. In the suction box section the wire receives its greatest punishment. This can be eliminated in some degree by the proper adjustment of several boxes, or better still, install automatic vacuum control valves to hold the vacuum at any determined setting.

We are now at the couch roll, which in my estimation (and I believe you gentlemen will agree with me) is the most critical spot that we have, at least this is where the major portion of our breaks occur. As I mentioned before, this has been one of our main sources of trouble in speeds over 1500 F.P.M. due to the sticking condition that occurs here.

When we started to think of these higher speeds our first thought was that we would need wider suction areas in the couch roll, and did build some rolls with areas up to 21 inches wide. In the past year or so we have found out that it is more practical to use a narrow suction area in the couch roll with very high vacuum for high speeds.

In a careful check of wire performance we have found that by using a closer mesh wire this sticking condition is cut down to a minimum. We are at present using 60 x 40 mesh wires.

There seems to be no immediate problem of operation in the press sections, providing all rolls are kept in good shape and to the proper crown, and the proper type felts are used. The arrangement of the press section should as simple as possible in methods of control and facilities necessary in changing felts. The use of hydraulic and pneumatic means of loading offers an advantage over mechanical loading due to the positive control of nip pressures, which is very essential.

In its general make up the dryer sections have changed less than any

* Presented at the National Convention of The American Pulp and Paper Mill Superintendents Assn., Portland, Ore.

other part of the paper machine. In physical appearance this is largely true, but the increase in drying rates on all machines indicates that a great amount of thought and study has been devoted to this phase of paper making in the way of ventilation and water removal. In some cases high steam pressures are permissible where high temperature drying is not detrimental to the sheet. However, the best results are obtained usually by low temperature drying. One of the main troubles of operation in the dryer section is the breaks that occur in the first few dryers of the 1st section. We feel that these breaks come from the paper web being injured as it leaves the couch roll and due to the efficiency of the straight away press sections the web does not completely part until getting into the dryers.

From the dryer section on through the winder there does not seem to be any immediate problem in the way of reaching higher speeds.

One thing that we might suggest is the matter of control. We can not express too strongly how important instrumentation and automatic control can be in high speed paper machine operation and we must not forget that the present day electrical paper machine drive with its fine control has been a major asset in attaining the high paper machine speeds that we are operating at today.

In closing I would like to say that while we have been operating in speed between 1500 and 1600 feet we do not have any definite answers from there on up. That, gentlemen, is the problem in high speed kraft operation today.

Corrosion of Fourdrinier Wire Cloth*

A. G. Hose

Laboratory Director, The Lindsay Wire Weaving Co.

When we talk of corrosion we are speaking of a commonplace happening. Certainly it is present in one or more of its many forms in all used wire cloth.

It is now fairly well agreed that all corrosion is electro-chemical in nature. This means electrical currents are flowing in the wire cloth and in the stock which acts as an electrolyte. This helps explain some of the odd things which happen when a wire corrodes. As the concentration of soluble salts in the stock increases, it becomes a better electrolyte. The better the electrolyte, the faster, usually, is the rate of corrosion. This would point to a higher degree of corrosion in a closed, or semi-closed, system than in one where all of the white water goes to sewer.

The rate of corrosion varies rapidly with the temperature and at least one observer has found that for every seven degrees temperature increase, above room temperature, there is a twofold increase in the rate of reaction. This could mean an eight-fold increase in corrosion rate with an increase of headbox temperature from say 110° to 130°. It should be noted at this time that corrosion is a complex reaction and many influencing factors can modify or even reverse the expected rate of corrosion or even the form that the corrosion takes.

Some forms of corrosion often found in used wire cloth are:

Straight chemical corrosion, where the appearance of the wire cloth is tarnished or etches, with the brass shute reduced rather uniformly in diameter. It is the most common form and is readily affected by pH, presence of chlorides, ammonia, and oxygen. If oxygen is relatively high, as when aeration takes place, the more complex forms of corrosion will usually show up. The cloth may be free from scale or it may have a surface oxide formation. The presence of scale points to the more complex forms of corrosion. A thin adhering oxide tends to protect the wire from further corrosion by acting as a barrier to the flow of current; however, if the film is broken in places, serious localized corrosion may occur.

Electrolytic corrosion is another important form and it can be divided into several types, Galvanic, Intergranular, Pitting, and Corrosion-Erosion.

Galvanic corrosion is the result of coupling dissimilar metals in a suitable corrosion environment, resulting in a battery action in which one of the metals is corroded very rapidly. As you know, in Fourdrinier wire cloth we usually use bronze warp and brass shute, both copper alloys which are generally considered to be compatible, i.e., they should not form a galvanic couple with each other. In spite of this, it is not unusual to find galvanic corrosion present in used wire cloth. When using brass shute it will corrode more rapidly than the bronze warp thereby offering some protection to the warp. This is desirable because the warp must take all of the wear and most of the fatigue and any protection against corrosion given it is an advantage. In the case of all bronze cloth under galvanic corrosion conditions, it is often the bronze warp which takes the corrosion as well as the wear and fatigue. For this reason we often hesitate to recommend all bronze cloth for use under corrosive conditions.

A rather special case of galvanic attack is one wherein the material used in the brazed seam is selectively attacked and, because of the relatively small amount of brazing alloy present, rapid failure of the seam can result. All of the conditions leading to this type of failure have not been explored; however, we know that any increase in conductivity of the stock by increased concentration of soluble salts increases the chances of this type of corrosion. Chlorides above 100 ppm are definitely dangerous. Some relief can be secured by using a more resistant seam brazing alloy, but even then a localized attack on the warp wires at the seam may result.

Intergranular corrosion is another type of electrolytic corrosion, and is, perhaps, the worst of all because, when present, it does not reveal itself by any change in the external appearance of the metal. The wire cloth may appear to be unattacked yet the individual strands have been seriously embrittled and early failure can easily result. There are several known ions which, when present in sufficient concentration, can cause intergranular corrosion. From experience, and from laboratory tests, we know that chlorides above 100 ppm and mercury above 3 ppm can lead to intergranular embrittlement. There probably are other ions, not yet suspected, which also cause this type of attack. Certainly combinations of the above ions radically reduce the concentrations necessary to cause attack.

Two other types of electrolytic corrosion found in paper mill wire cloth

* Presented at the Joint Fall Meeting of the Southern and Southeastern Divisions of the American Pulp and Paper Mill Superintendents Assn., held at George Washington Hotel in Jacksonville, Fla.

are pitting and corrosion-erosion. Pitting is quite common and occurs when straight chemical corrosion has been modified by formation of a protective film which is porous or has been broken down in places. A frequent result of this type of corrosion is dezincification of brass shute. Corrosion-erosion is not common alone, although it probably plays quite a part in modifying the effect of other types. It is the result of the turbulent flow of solutions over metal surfaces and may be considered a special form of pitting. Another name for it, commonly used, is impingment corrosion.

Another form of corrosion, which we feel is always present in wire cloth. is corrosion fatigue. Corrosion without fatigue is usually a surface phenomena; however, fatigue often breaks down the protective film formed on the surface allowing deep penetration and localized attack to occur. If we consider a metal as laminated and if we look at a metal's resistance to corrosion as one layer and its resistance to fatigue as another layer, we can see that if only fatigue or if only corrosion is present one of the layers will keep metal from failing. When both corrosion and fatigue are encountered, then both layers are alternately broken down leading to rapid and complete failure of the metal itself. Corrosion plays at least some part in the rate of wear of a wire on the machine. We feel that when the corrosion product which is relatively soft is abraded off, a fresh surface which corrodes rapidly is formed so the alternate corroding and abrading action more than doubles the effect of wear alone in much the same manner that fatigue and corrosion combined multiply the rate of failure of the metal by corrosion fatigue.

We are not able to prophesy just what the corrosion conditions will be under even controlled sets of conditions and in the paper mill many unknown factors are involved. We therefore feel that the analysis of samples of used wire cloth returned to us with information as to its relative life, how it failed and other operating information, is the best way for the wire manufacturer to determine what part corrosion plays in the performance of his wire and what he can do to help. There are limitations to this analysis because of effect of wear, etc., so sometimes we feel more can be learned through headbox samples. They have the advantage of showing what corrosion, not masked by fatigue and wear, do to the wire cloth.

Now comes the big question of what to do about the corrosion. We have attempted to list the problems with the belief that when it is recognized the paper mill will take what steps they can to alleviate their corrosion condition if it is a major reason for short wire life or poor wire performance. The wire cloth manufacturer is limited in what he can accomplish. We use phosphor bronze alloy for warp because it is the best all around metal suitable for weaving into wire cloth that is commercially available. It combines the highest corrosion, abrasion and fatigue resistance. All three of these properties are essential. We are constantly checking new alloys in the laboratory in hopes of finding one that is superior to our present alloy.

This short discussion has made no attempt to cover the many other problems affecting wire life. I should like to state that we stand ready to help in whatever way we can on problems in individual mills involving Fourdrinier wire cloth.

MAINTENANCE—XIV OF SERIES

Hints on Turbine Maintenance In Paper and Pulp Mills

Detailed information on proper scheduling of turbine maintenance, what to look for, and how to insure high economic service.

G. W. Anderson and A. M. Cooper
Westinghouse Electric Corp., East Pittsburgh, Pa.

Development of steam turbines for driving generator equipment, paper machines and other mechanical equipment in paper and pulp mills has been rapid during recent years. Sizes as well as operating pressures and temperatures have been increased. As a consequence, turbine maintenance programs have become more involved and more important in assuring continuity of service and realization of high economic performance.

Ordinarily, organizing an industrial plant maintenance department, comparable in extent with that in most of the large central stations, is not possible. In most mills, maintenance work is performed by mechanics employed to service any and all equipment throughout the entire property. A group of specialized mechanics for maintaining power plant equipment exclusively is not usually carried on the plant payroll. For this reason, the engineer in charge of the power plant must develop certain key men who can direct the work of the general mechanics during a maintenance job. The general mechanic usually is a willing worker, but he does not know the importance of many of the details in maintaining a turbine. Unless his work is supervised by someone who is familiar with the equipment, an unsatisfactory maintenance job frequently results—not because it is poorly done, but because the man doing the job did not understand what was required. As paper mill power plants develop in size and functions, a well-trained maintenance supervisor becomes increasingly important.

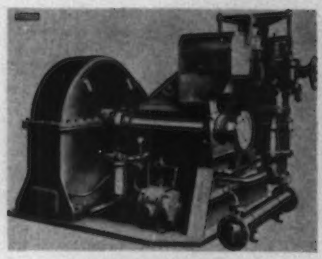


Figure 1—Good housekeeping and proper governor maintenance are essential for maintaining proper performance on the most important drive in your mill—the paper machine. Here, a 2000-hp paper machine drive turbine designed for a 10-to-1 speed range at 850 lb initial pressure.

Maintenance programs are of course necessary. Systematic schedules of outages of the power plant equipment for inspection and repair must be set up. Such outages must be planned to conform with the production and operating schedules and can generally be handled coincident with the annual or semi-annual plant shutdowns practiced in most mills. The power plant equipment must have its turn for inspection, and, if necessary, repair. If systematic inspection is not provided, unscheduled outages, due to breakdowns of the power plant equipment, are certain to result. Always these enforced outages come at a time when they seriously impair a mill's production. The engineer in charge of the power plant is responsible for seeing that a schedule is set up for inspection and repair for his equipment. And the management should cooperate with this engineer in arranging such a schedule. This seems logical and quite sensible, but many a costly outage of power plant equipment has resulted because such a plan was not followed.

In drawing up a maintenance schedule the engineer must keep a record of the condition of the equipment and make frequent reference to the operating log. This record need not be complicated, but it must briefly cover the condition of the equipment as found during each inspection, include dates, and show the materials used for any repairs. No one can arbitrarily set up a definite length of operating time between general inspections of all turbines. In some cases one year is satisfactory. In other cases these general inspections may have to come more often; while in still others a period of two years or more may elapse between the general examinations.

Scheduling of a general inspection depends on the operating performance, indicated by the log, and the conditions of the equipment as found during the previous inspection. In the case of a new turbine a general recommendation is that it be opened and checked completely at the end of the first year of operation. This inspection may reveal deposits of foreign matter in the blading as the result of carry-over from the boilers, erosion of blading because of moisture in the in the steam at the lower stages, accumulation of dirt or rust in the oiling system, or indication of mechanical distress of the internal parts. Judging from the conditions found the engineer can decide how long a period of operation is safe before the next inspection should be made. Then he should schedule that work. If the conditions found are satisfactory, perhaps a longer operating period can ensue before the next inspection. However, maintenance crews should bear in mind that such examinations are made for the purpose of assuring that the equipment is in good condition—not for the purpose of making repairs that were long overdue.

Figure 2 — Deposits of scale on blading formed by "carry over" from boilers will cause reduction in capacity or mechanical damage if not removed periodically or eliminated at the source.

Pressures

By systematically checking the operating log the engineer can obtain considerable information for his guidance in setting up a maintenance schedule. Changes in pressures and temperatures almost always reveal a maintenance condition. The following are a few typical examples of such indications.

Stage pressures recorded at intervals under the same load circumstances will indicate the cleanliness of the blading. If these pressures become greater with the same situations prevailing, probably carry-over from the boilers is depositing on the blading and is restricting the flow of steam. Consequently an outage must be scheduled to wash out or clean mechanically this deposit before the capacity of the turbine is seriously reduced or a mechanical failure results.

Improvement in boiler feedwater treatment has greatly reduced the danger of trouble due to deposits of carry-over in the turbine blading. Seldom today must large quantities of baked mud be cleaned out, although this was frequently the case during the early days of turbine and boiler development. However, even with the modern methods of treating boiler feedwater, and the use of high pressure and superheated steam, certain elements are carried over with the steam and will create deposits in specific sections of turbine blading. This condition must still be watched.

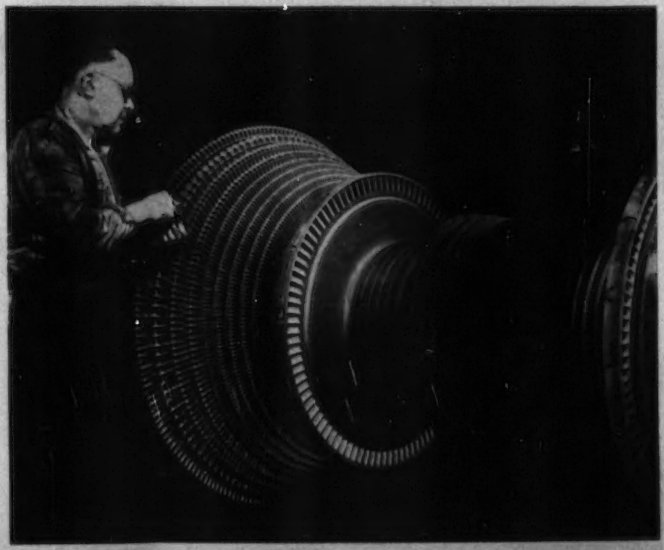


Figure 3—Detailed inspection of blading assures that it is in good condition for the next operating period.

A general increase in lubricating oil temperature bears investigation. Frequently this is the result of the oil cooler becoming dirty. A schedule for periodic cleaning should be set up whereby the oil cooler is kept reasonably clean at all times. The formation of scale on the water side of the oil cooler tubes is usually accelerated as the result of the increase in oil temperature that the scale itself causes. Often the cleaning is delayed too long and the oil temperature becomes dangerously high before action is taken. The excessive oil temperature contributes to higher maintenance cost of the turbine as well as damage to the oil. The necessity of keeping the oil cooler clean is a fundamental of operation, which seemingly need not be mentioned here, but in a surprising number of plants it is neglected.

Controls

Most of the turbines in use today in paper and pulp mills are designed for automatic extraction and- or non-condensing operation with steam being supplied at various pressures for digesters, dryers and water heating. These turbines are equipped with regulators and control devices which must be properly maintained to give good service. By reference to the log and recording charts, the engineer can determine just how well these pieces of apparatus are performing their functions. Sticky valves or relays will become evident by the appearance of irregular recordings on pressure or flow charts. Worn linkage or failing pressure regulator diaphragms will show up as irregular speed or pressure control. If action is taken when these irregularities first appear on the charts of records, they can be eliminated by scheduling a regular inspection and cleaning of the control equipment. Should this not be done, an enforced outage may result from a control device becoming wholly inoperative. The replacement of pressure diaphragms, which are a part of automatic control equipment, should be given special attention. Operators need not wait until the diaphragm breaks, and causes an outage, before replacing it. Schedules should be set up to renew all diaphragms at regular intervals. They are not expensive, but their failure, caused by lack of proper maintenance, has resulted in many expensive outages.

Also a schedule should be provided for the operators to test out the auxiliary oil pump and record the results in the log. Regular intervals should be designated for inspecting the control valve and replacing the diaphragm in the automatic regulator that brings this pump into service. The auxiliary pump stands idle a large proportion of the time, and is much more subject to lack of attention than a piece of equipment which is continually in operation. Turbines have been seriously damaged because the auxiliary oil pump was in poor condition and failed to start when the turbine was being shut down.

Lubrication

Definite schedules should be drawn up too for checking the condition of the oil in the turbine lubricating system. Most oil suppliers will gladly analyze a sample of their product from a unit. Oil does not wear out, but it does become unusable due to contamination with water and dirt. Strainers in the oiling system should be examined regularly. They will supply an indication if any foreign material is getting into the lubricants. The appearance of flaked babbitt or bronze cuttings in the strainer frequently enables the engineer to discover bearing wear before an actual failure occurs. This is a warning that demands action in checking operating conditions and perhaps scheduling an outage for complete investigation.

Samples of oil from the bottom of the oil reservoir should be taken regularly. If water is found in the oil, an investigation should immediately be started to locate the source of the water and eliminate it. Most turbine oils do not stand up long when contaminated with water. Often a small amount of water in the lubricant will cause rust formation on the iron parts of the oiling system. Gritty particles of rust from this source will be carried to the bearings and journals, and this may create serious damage. In many cases the quantity of water in the system will not be sufficient to appear definitely in a sample of oil taken from the bottom of the reservoir. Therefore, although the sample does not show any water, a second step in the investigation is necessary. Examination should be made of the underside of the reservoir cover, and the upper inside surfaces of a return oil line which runs only partly filled. If a gritty formation of rust is found at these locations, water has been in the oil. However, it has vaporized and then condensed on these relatively cool iron surfaces. Many of the turbine oils now in use contain inhibitors for the purpose of preventing oxidization and corrosion. When rusting of the interior of the oiling system develops, the supplier of the lubricant should be contacted and his assistance obtained for eliminating the condition.

Vibration

Excessive vibration is of course an indication of mechanical unbalance or misalignment, and this demands immediate attention. However, in many cases vibration may have been increasing over a long period of time, and earlier steps to eliminate it might have prevented an unscheduled outage. Measuring and recording the amplitude of vibration at regular intervals is a good plan. In that way a small gradual increase in vibration can be noted and correction made during a regularly scheduled outage. Small

Figure 4—Replacing a diaphragm that had considerable service in an extraction pressure regulator is insurance against service failure.

Figure 5—Periodic inspection of insulation, lashing, and blocking is essential in maintaining a generator in good operating condition.

weight or reed type vibrometers are available on the market for this purpose.

When a general inspection requiring complete dismantling of the turbine is to be made, the work should be supervised by a representative of the manufacturer. With his experience he can pass judgement on the condition of blading, nozzles, valve gear, and other parts that may be showing signs of wear. These may require immediate repair, but if not, replacement parts should be ordered for installation during the next regularly scheduled outage. Here again the thought must be to predict required repairs in order that they can be made before the condition of the equipment reaches a point when a breakdown disrupts the mill production.

Summary

Checking back over the records of enforced outages, evidence was almost always present to indicate that the outage could have been prevented had certain maintenance or operating details been watched more closely. In many cases these precautions were simple matters, as explained. The control of this work is in the hands of the man supervising the maintenance and operation of equipment. By setting up a systematic record and schedule for making inspection, normal cleaning and minor repairs, he can eliminate a great many enforced outages and, in many cases, prevent costly major repairs.

FINANCIAL

Lily-Tulip Cup Corp. has declared a quarterly dividend on common stock of o2½c a share, payable December 17, to stockholders of record at the close of business December 3.

Donohue Brothers Ltd., and wholly owned subsidiary, Donohue Brothers Sales Corp., of Quebec, report net estimated profits for the nine months ended September 30 are $693,883, equal to $4.62 per share, as compared with $636,279 or $4.24 per share, for the similar period of 1950. The 1951 figures are after provision for income tax of $770,004.

The regular 25-cent dividend, plus a special of 50 cents per share, have been declared, both payable December 1 to stockholders of record November 15.

Harris-Seybold Co., for the second year in a row, has been selected as having the best annual report in the printing equipment industry by judges of the Financial World Survey of Annual Reports.

Great Lakes Paper Co., Ltd., report net profit of $3,115,729 for the nine months ended September 30 compared with $1,707,951 for the similar period last year. Operating profit totaled $8,589,695 against $4,604,416, while provision for income taxes increased to $4,303,000 from $1,725,000. Earned surplus at September 30, 1951, was shown at $8,605,085.

Hon. W. Earl Rowe, president and managing director, points out that during the 1951 period, mill operations were at maximum capacity for newsprint and wood pulp production, conditions which will continue throughout the fourth quarter of the year. The substantial increase in operating profit in comparison with 1950 results is in the main due to greatly increased volume of wood pulp sales, Mr. Rowe states.

Anglo-Canadian Pulp and Paper Mills Ltd. has declared four quarterly dividends of 50 cents, payable in 1952 as follows: January 7 to shareholders of record December 15; April 7 to shareholders of record March 16; July 7 to shareholders of record June 14; and October 7 to shareholders of record September 15.

St. Lawrence Corp. Ltd., in referring to the special dividend of $1 per share paid November 1 and regular quarterly dividend of 50 cents per share payable on January 15, has indicated that the dividends declared may appear to be somewhat modest in view of present earnings of the enterprise but the need for conservation of present liquid resources will be realized when consideration is given to the facts that during the current year all of the preferred shares of the corporation and its subsidiary, St. Lawrence Paper Mills, have been retired.

In addition, it has become both necessary and desirable to proceed with modernization and expansion of plants at an estimated cost of $22 million. This program will serve to increase the annual output of finished products by approximately 140,000 tons, consisting of 80,000 tons of kraft and board products and 60,000 tons of newsprint.

Great Northern Paper Co. and its wholly owned subsidiaries for the nine months ended September 30 showed net profit of $3,391,780 as compared with $2,844,675 in the similar period of 1950.

The profit for the nine months equaled $3.40 a share compared with $2.85 a share last year.

Oxford Paper Co. has ordered a year-end extra dividend of 40 cents on the common stock, payable December 15 to stockholders of record December 1. The company paid an initial dividend of 20 cents on October 15 following a 100 percent stock dividend.

Container Corp. of America announces that since the release of earnings on October 16, the 1951 Revenue Act was enacted and became effective retroactively. The effect of this Act reduced the earnings reported for nine months ended September 30, 1951, from $11,247,000 to $9,515,000; or $5.54 to $4.66 per common share.

The earnings reported for the three months ended September 30, 1951, were reduced from $2,310,000 to $1,989,000; or $1.12 to $.96 per common share.

Marathon Corp. has increased the regular quarterly dividend rate on the company's common stock from 50 to 60 cents with the declaration of a dividend at the new 60 cent rate, payable November 30, 1951, to stockholders of record at the close of business November 10, 1951. At the same time, the board declared a regular quarterly dividend of $1.25 a share on Marathon preferred stock, payable January 2, 1952, to stockholders of record December 20, 1951. Both dividends will be net to stockholders with the company assuming payment of the Wisconsin privilege dividend tax on the common dividend, which will be paid before expiration of the privilege dividend tax December 31.

Kalamazoo Vegetable Parchment Co. has declared quarterly and extra dividends, both payable December 10 to stockholders of record December 1. The quarterly dividend is 25 cents per share on common stock and the extra dividend is 20 cents per share.

Gaylord Container Corp. declared a dividend of 37½c a share on its common stock payable December 10, 1951, to stockholders of record November 30, 1951.

Northern Paper Mills, Green Bay, Wis., declared three dividends on November 7. They are: $1 regular quarterly and 25c extra on common shares and a $1.50 quarterly on the 6 percent preferred. All are payable December 10 to stockholders of record November 20.

United Board & Carton Corp. has declared an extra dividend of 10c per share on common stock, payable December 21 to stockholders of record December 7. This is United's first extra dividend since 1948.

For the 20 week period ending October 13, the corporation earned $847,865.44 before income taxes were deducted. For the same period in 1950, under the old administration, the corporation earned $356,064 before taxes.

Due to increased taxes this year, net profits for the 20 week period were $406,917.41, as against a net of $200,835.29 in 1950.

The Need for a Program of Research and Training for the Pulp and Paper Industry of the South*

J. Hillis Miller

President, University of Florida

The growth of the Pulp and Paper Industry in the South during the last twenty years has been phenomenal. The tremendous expansion in itself poses problems that must be answered before the industry can take its rightful place as a stable, integrated business. The wealth of raw material and the natural advantages of the South have caused a rush for production that overshadows and obscures the fundamental truisms that underlie modern business. Our declining resources and mounting costs will bring us to the point where only those concerns will survive that have made provision for the future.

Before such a well informed audience as this, it is unnecessary for me to repeat or detail the tremendous growth that has occurred in the Pulp and Paper Industry in the South during the past several decades. I do not have to tell you that the future of the Pulp and Paper Industry in the South is a bright one with prospects for continued growth and expansion. It would be redundant for me to emphasize to this group that continued technical improvement, better controls, and, of course, improved management are price necessities if the Pulp and Paper Industry is to continue to expand and take its rightful place in the South.

Rather than bore you with facts with which you are already familiar, I would like to show you how a vigorous and growing institution of higher learning can be of immeasurable assistance to the industrial development of a state or region.

A great university has a three-fold mission: The first responsibility, and the one that ordinarily comes to mind when a university is mentioned, is the education of its students. I would like to stress not only the education of undergraduate students but the very great need for the education of graduate students who are trained in research to assist you with the problems of your industry. In my opinion, the essential difference between a "College" and a "University" is the difference between a strictly undergraduate teaching institution and an institution with a growing and vigorous graduate program.

The second important function of a university is to conduct research. The purpose of conducting research at the University of Florida, in addition to educating graduate students, is to advance the fields of knowledge and to discover new laws of nature. By discovering new facts on the periphery of knowledge it becomes possible for them to be utilized for the betterment of mankind. In our institution, and particularly in the applied Physical Sciences and Engineering, we try to direct our research program in a path that will lead to the utilization of raw materials in our own area and to the improvement of our own industries. For example, you are all familiar with the need for more information in the general field of heat transfer and better utilization of heat energy. Members of the staff of the University of Florida are also aware of the need to increase our fundamental knowledge in that area. One of the research problems through which a graduate student hopes to receive the Doctor of Philosophy degree is a fundamental study of the problems of heat transfer with particular reference to better utilization of energy in the Pulp and Paper Industry. It is believed that the fundamental factors that will be uncovered in this investigation will have eventual application that will be of direct importance to many of you sitting in this audience.

The third function of a university is to disseminate information and to continue the educational program beyond the days of formal academic training. This function is accomplished through the publication of bulletins and papers, and through short courses held on the campus at Gainesville and at various parts of the State. During the past two years, 67,000 people were contacted by the University in our continuing education program through our Extension Division and through short courses given by agriculture, engineering, business administration, and other divisions of the University.

Since this audience is primarily interested in paper and pulp, I would like to tell you specifically what the University of Florida is doing and hopes to do in the future for your industry.

When the Engineering and Industrial Experiment Station was established less than ten years ago, it looked into the industrial needs of the state. It was decided that research in the pulp and paper fields was certainly one of its important responsibilities. Several men sitting in this audience helped us to secure funds for engineering research. They gave of their time unselfishly because they knew that research of this kind was of importance to the State, to the whole South, and to the Industry. Various committees of the State and local Chambers of Commerce were of very great assistance in establishing a research program in this area. I hesitate to mention any individual but I cannot resist mentioning the contributions that were made by Mr. W. T. Edwards, not only as Chairman of the Forestry Division of the State Chamber of Commerce, but in many other ways.

As State funds became available for engineering research, the pulp and paper program has grown apace. Most of you who have not had the opportunity to see the Pulp and Paper Laboratory at the University of Florida recently would be amazed at its growth. There is equipment there for research that is equaled nowhere in the South and in some categories not duplicated anywhere in the United States. It was established because of the great need for a well coordinated plan of research on utilization of southern wood and to assist in solving those problems peculiar to the mills of the region. It endeavors to promote research and study in the development of cellulose, paper, and artificial fiber products and to train technical men for the industry. It is already one of the largest pulp and paper laboratories in the country. Even then the facilities are not altogether ample to take care of new and pressing problems.

The advantages of a centralized pulp and paper laboratory for the South are

* Presented before the joint fall meeting of the Southern and Southeastern Divisions of The American Pulp and Paper Mill Superintendents' Assn., George Washington Hotel, Jacksonville, Fla.

apparent. The centralization of such a research organization is particularly advantageous from the standpoint of personnel and it avoids duplication of expensive equipment and duplication of effort on the same problem. The Pulp and Paper Laboratory of the University of Florida is the only one in the country that has engaged primarily in investigation of kraft pulping and problems connected with kraft pulp manufacture. It has grown so fast that it is becoming quite difficult for the state to support it properly.

The Laboratory is equipped to carry out research and instructional work in any of the pulping methods. The effect of change in any of the pulping variables on the properties of the resultant pulps may be determined. There is a large amount of additional equipment on hand with which a number of chemical engineering problems may be solved, including those on by-products, mechanical problems, and investigation of specialties.

Plans are well under way for the installation of two modern pilot plants. Each of these will be on a tonnage basis and accurate data may be secured for the design of pulping processes. The first of these is a six ton per day plant in which the Florida Continuous Pulping Process will be tested. The second is a semi-commercial bleach plant in which it is proposed to test out a new method of bleaching. Both of these plants will be available for making commercial tests as soon as they are completed.

The Laboratory has accomplished a great deal in the short time that it has been in existence. One of the most interesting problems at the Laboratory was the investigation into methods of utilizing the tremendous amount of scrub oak which abounds throughout the South. Previous to investigations at the Laboratory this tree was considered a weed tree and valueless. The continued drain on pine, despite some reforestation, has brought about the situation in which the hardwoods, mostly scrub oaks, now constitute well over fifty per cent of the wood resources of the South.

Scrub oak as such is no respector of state boundaries and grows as far north as Virginia. At present much of the scrub oak is being poisoned or burned off to make way for replanting of slash pine. There are many areas, however, in which the land is so poor that the scrub oak crowds out the pine. It is an economic necessity that this material be used. Research has shown that it can be used in the making of boxes, in the making of excellent book paper, and that it can serve to make raw material for the viscose and other synthetic fiber industries. It has been estimated that there is enough scrub oak in Florida alone to sustain in perpetuity five paper mills turning out five hundred tons each a day. It has been estimated further that enough pulp for synthetic fibers could be turned out each day to supply half of the present demand without diminishing the supply of scrub oak in any way. Further, as a by-product, the tannin that could be recovered from the oak bark would supply a large portion of the demand of this country for vegetable tannin. It is research that points the way to all of these things. Expanded research is necessary, then, if the South is to realize the full value of one of its largest natural resources.

Equally important to the industry is another piece of research turned out by the Laboratory. Working from a new angle of approach, the Laboratory has developed the Florida Continuous Pulping Process. This process has tremendous commercial possibilities and should be of interest to every pulp company in the United States. The process is being patented and any revenue will accrue to the University for use in further research. The method is simple and consists of first softening the chips, then expanding the surface many fold, and finally cooking under constant conditions. The finished pulp is obtained in twenty-five minutes or less. The end product can be varied from the crudest pulp to the finest pulp simply by changing the conditions. The work on this method has been completed in the Laboratory and the next step is to test the method in a pilot plant. Equipment manufacturers believe that the process has a good chance of success and are contributing or loaning their equipment which in value amounts to two hundred thousand dollars. This is a significant indication of their opinions of the process.

The southern Pulp and Paper Industry needs the help the Laboratory can give them. The present lush days, when almost anything goes and when every company can sell every pound of material it can produce, will not last forever. It is only wise that the industry put itself in a favorable position for the days of keen competition that will come when the present emergency is over. Moreover, in these days of high taxation, the actual out-of-pocket cost is only a fraction of the total cost because most of it can be charged off as expense. Research in itself does not guarantee favorable results but the value of continued research is evident when one considers the records of some of the largest and most successful corporations that have grown to their present size through such methods.

Our Pulp and Paper Laboratory needs the help that industry can give. Its present size, its record of achievement and its location close to the heart of the kraft industry, makes it the logical choice as the center of research for the southern pulp and paper industry. The Laboratory can assist in testing or exploitation of new methods and new materials and can concern itself with the efficient recovery of by-products and their uses. Not only is it large and well staffed but it can command and secure the services of the experts in the College of Engineering, as well as the experts in other fields throughout the University.

Men in your positions are well aware of the value of a slightly more efficient plant, or of a little better product, or of a somewhat lower cost than your competitors. The spending of a relatively small amount for research now will mean abundant dollars in the future. Increased wealth and revenue for the South will result from an expanded research program in the field of wood utilization.

Now that I have pointed out to you some of the things that the Pulp and Paper Laboratory has accomplished to date, I would like to present briefly the other side of the picture. Pulp and paper research is expensive. While we are equipped to find many of these improvements and facts on a laboratory basis, you as pulp mill superintendents insist that these laboratory findings be proved on a pilot plant scale before you are willing to build outright a full scale plant. Pilot plant research is expensive and beyond the present funds available from State sources to the University of Florida.

However, since we believe that the solution of the problems is vital to the well-being of the whole South and of your industry, I want to tell you what we are planning to do about it. We feel very strongly that industry and all the states of the South, including Florida, should become partners in this vital research program. Conservation of natural resources is no respector of States boundaries and solution of technical problems is not confined to any one particular paper and pulp company. Since the research program is an expensive one requiring large sums of money for equipment and investment in a well-rounded, highly qualified staff, we believe that one properly equipped and staffed research laboratory for the South is the best solution to the problem.

In order to help bring about such a central research laboratory, funds will have to be obtained from all of those who will be benefited by such a laboratory.

We are, therefore, proposing a three point program to bring about a pulp and paper laboratory and a program of research and technical training that will be the equal of anything in the United States with its prime job to focus its research interests on the paper and pulp problems of the South and to furnish trained personnel for the industry.

The first step in this program is to discuss the matter with leading representatives of the Pulp and Paper Industry. Most of those people with whom we have talked recognize the problem and believe that our program is a sound one. The problem is to get the various groups together in the industry to work for a common purpose, each one in proportion to his means and ability to contribute to the program. Each one of you in this audience can be of assistance in this program by discussing with your colleagues the type of research problems

that you would like solved and suggesting means whereby this Laboratory can be of assistance to you.

Realizing that the problem is not one for Florida alone, we are taking another very important step. We have presented the problem to the Board of Control for Southern Regional Education. As you know, this organization was set up by an interstate Compact to improve the educational facilities in the South and to avoid unnecessary duplication of research facilities. We believe very strongly that it would be unwise for each of the fourteen Southern States which have entered into the Compact to set up duplicating facilities for paper and pulp research. It would be unwise to ask industry to sponsor research problems in fourteen different research laboratories, one in each state. Therefore, we have presented the problem to the Board of Control for Southern Regional Education as one of those areas in which cooperation might be expected among the states to give the South the research facilities in paper and pulp which it needs. We are ready and willing at the University of Florida to work with the other states and with industry to help solve some of the research problems in paper and pulp.

The third step we are taking at the University of Florida is to encourage the companies in the Pulp and Paper Industry to establish scholarships and fellowships at the Laboratory in order that we might attract young men with the best brains to the industry. These bright young men will serve as research assistants while they are in the University, and when they shall have graduated they will be ready to make a major contribution in the field as thoroughly trained technicians.

If we all do our jobs properly, we can look forward to an ever expanding, diversified and healthy Pulp and Paper Industry in the South. If we miss our opportunity, our children and our grandchildren will take us to task. The time to do research is now, in order to insure results in the future. Unfortunately, the Pulp and Paper Industry of the South has been somewhat negligent in supporting research for its own survival. I invite you as influential members of this industry to weigh this problem carefully for your own well-being. We at the University of Florida will welcome your suggestions, your advice, and we shall do our best to be of service to you.

Wholesalers and Retailers Report On Inventories

WASHINGTON, D. C. — Wholesalers' business in paper and related products for September were at an estimated $9,752,000 level, down 1 percent from a year before, and 12 percent from August sales, in Bureau of Census returns reported last week.

However, sales for the first 9 months this year were 26 percent higher than for the same months of 1950, said the Bureau. Inventories rose 21 percent from a year ago, and 3 percent from August.

New England wholesalers reported September sales totaling $273,000, down 8 percent from a year ago, and 18 percent from August, but for 9 months of 1951, showing a rise of 25 percent over the same months last year. Inventories were 10 percent higher than in September, 1950, and 1 percent below August level.

For the Middle Atlantic states, reporting wholesalers showed September sales totaling $3,024,000, four percent higher than a year ago, but 14 percent lower than in August, 1951; sales for 9 months of 1951 were up 36 percent from the 1950 level, however; the largest gain reported either nationally or from any other region of the country for the period. Inventories were 18 percent higher than a year ago, and 6 percent above August level.

South Atlantic states' wholesalers reported September sales of $816,000, up 4 percent from a year before, and 7 percent below the August level, but as compared with the 1950 period, 28 percent higher for 9 months of this year.

Inventories in that section were not shown.

In the Wisconsin, Michigan, and other East North Central states area, wholesalers reported September sales of $3,376,000, a decline of 3 percent from a year before and 6 percent from August sales; for 9 months of this year, however, sales were 23 percent above those in the comparable 1950 months. Inventories were 14 percent higher than a year ago and up 3 percent from August level.

Pacific states wholesalers reported September sales, at $1,466,000, were 4 percent below those a year earlier, and off 17 percent from August, but for 9 months this year, were up 22 percent over the 1950 months. Inventories were 27 percent higher than a year ago, but down 3 percent from August.

Total business inventories at the end of September were valued at $69.3 billion according to the Office of Business Economics, U. S. Department of Commerce.

After allowance for seasonal variation, the book value of inventories at the end of September was about $250 million lower than August. An increase of $350 million in manufacturers' inventories was more than offset by a decline of $600 million in retailers' inventories, while wholesalers' inventories remained unchanged. After allowance for somewhat lower inventory costs reflected in the September book value changes, however, physical volume increases in manufacturing and wholesale inventories fully offset the decline in retail stocks.

Retailers inventories at the end of September were valued at $18.9 billion. After adjustment for seasonal factors, stocks of retailers of durable goods decreased about $350 million from the previous month—with more than half of the decline occurring in stocks held by motor vehicle dealers. Small declines were reported by most other durable goods trades.

Nondurable-goods stores' inventories in September declined about $250 million from August, on a seasonally adjusted basis. Of the major lines of trade only the food group showed a book-value increase over the previous month. The apparel and general merchandise groups accounted for most of the decrease.

The figures shown in this release for all business sales and inventories represent revised data. These revisions are described in the October 1951 issue of the *Survey of Current Business*, monthly magazine of the Department of Commerce.

New Equipment

Autotronic Die Press

Operator safety, achieved by the ingenious use of photoelectric cells, is one of the features of the new Autotronic Die Press recently released after a year of field test.

Based on the excellent mechanical operation of the mechanically-operated press, the manufacturer's 70th anniversary model, has completely new engineered components, including automatic table motion. These also include a complete electrical push button system worked through an electronic panel with easy rheostat adjustments. The electrical control and mechanical operation, it is claimed, give better performance with less maintenance.

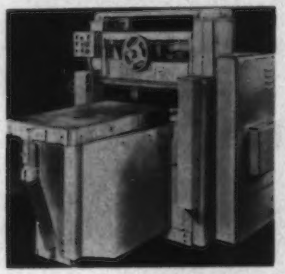


Photo electric cells which time the automatic table motion are also designed to act as an operator safety by stopping machine if operator's hands interfere with the "beam" during cycle. Power and machine safety too are stressed. A Micro-Flex safety switch detects overloading instantly.

Other features include a smooth, self-adjusting electric clutch and brake for faster starts and stops. With push-button controls and automatic table motion work load factor has been considerably cut with no "push and pull" of cutting board, it is stated.

For further information and free literature, write Hobbs Mfg. Co., Dept. A, Salisbury St., Worcester, Mass.

Remote Control Attachment

The remote control attachment for fork trucks allows truck operators to control the lifting and lowering action of the forks at a distance from the truck's control panel. It was originally developed for use in a plant where truck operators used pallets with guard rails as work platforms; standing on the pallets as they raised themselves to the stock they want.

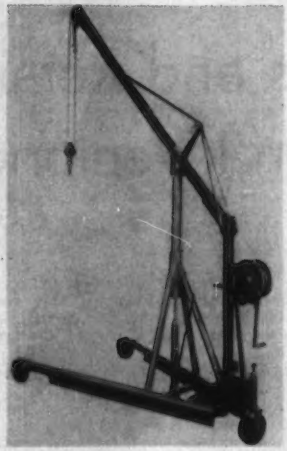
Lifting and lowering is controlled by the small remote control unit held in the operator's hand. During normal truck operation, the remote control unit clamps over the tie bar on the truck's inner upright. Cable for the remote control unit is housed in reels, under tension, so that it won't kink. Reels contain enough cable to allow unit to reach truck's standard lift limit. All Baker fork truck models can be outfitted with the new attachment.

Write to Baker Industrial Truck Div., of the Baker-Raulang Co., 1250 West 80th St., Cleveland 2, Ohio.

Portable Shop Crane

The improved portable shop crane features a hydraulically adjustable center post for wider adaptability. Known as the Sasgen Crane, it has a lift of 9′ 2″ and a maximum lifting capacity of 4000 pounds.

The hydraulic center post is designed to provide a wide range of lifting heights to suit a number of specific lifting jobs. Hydraulic mechanism is hand-operated, and features simple and positive control. Boom



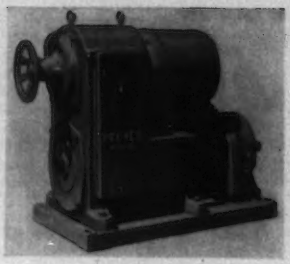
height adjustment to permit short-cable jobs can be accomplished easily in a matter of seconds, it is stated. A winch to raise the load is provided, and seven turns on winch handle raises load one foot.

Large 8″ roller bearing wheels for easy movement of loads are standard equipment.

For complete information, write to Allied Mfg. & Sales Co., 3103 West Grand Ave., Chicago 22, Ill.

25 HP Motodrive

Designated as Model No. 8000, the new Vari-Speed Motodrive has a capacity of 25 hp. and is available in all speed ranges from 2:1 to 6:1. A complete, self-contained variable speed power plant, it combines in a single space-saving unit the Reeves speed-varying mechanism, the user's choice of any standard constant speed motor, and a built-in helical gear reducer, when low output speeds are required.



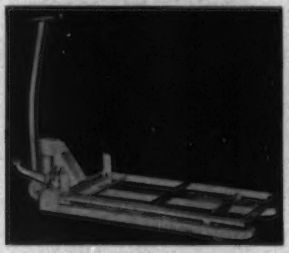
The new model is offered in horizontal and vertical designs. Handwheel control is standard, but electrical or completely automatic hydraulic controls are also available. A tachometer, calibrated to the user's specifications, may also be attached.

Produced by Reeves Pulley Co., Columbus, Ind.

Skid Adapter

A new skid adapter that enables conventional hand pallet trucks to lift and handle skid platforms has been introduced.

Conventional pallets are low and



have boards at both top and bottom, the manufacturer points out. Thus, a special truck with lowered height of only 3¼″ is required. Skid platforms, on the other hand, are usually higher, have no bottom boards and require the use of a platform truck having a 6″ or more lowered height. The hinged superstructure can be raised out of the way when handling pallets or lowered into position when handling skid platforms, this permits a single truck to be used for handling both types of equipment. Full details can be obtained by writing The Raymond Corp., 19185 Madison St., Greene, N. Y.

Fighting Paper Wanted

Invitation to Bid has been issued by the New York Quartermaster Procurement Agency, 111 East 16th street, New York 3, N. Y., on QM-30-280-52-571, covering Paper, Wrapping Kraft, 60 Lb. Test, Grade A, 36″ Wide, 1,000 roll; and Bags, Interior Packaging, Greaseproof, Type 1, Grade A, Class A, 6″ X 10″ I.D., 50,000 each. Bids will be opened December 10, 1951 at 2:00 P.M. (EST) at the New York Office. This procurement is for the U. S. Army.

Forest Fire Insurance?

BOSTON, Mass.—The development of reasonably-priced fire insurance for New England's more than 30 million acres of woodland, and ways of making it readily-available to the owners of the region's present 58 billion board feet of timber were explored at the 27th New England Conference on November 16.

"The amount of forest fire insurance now being carried is infinitesimal in comparison to the total value of the nation's privately-owned forest properties," H. B. Shepard pointed out. Mr. Shepard is forest economist of the Federal Reserve Bank of Boston and former senior forest economist of the U. S. Forest Service. He believes that such insurance, provided it can be reasonably priced, would remove a factor which deters private owners, particularly those of medium and smaller-sized woodlands from fully utilizing the best modern forestry practices.

"Some of these owners hesitate, and understandably, to make investments in forest management which may be lost if fire strikes their holdings," he said.

The factors which Mr. Shepard believes make forest fire insurance more practical today than in the past, and which can make possible lower, more attractive premium rates are:

1. The enormous progress made in forest fire protection, "now a dependable force on more than 80 percent of the forest area of the United States";
2. Higher forest values resulting from upward trends in prices of raw forest products;
3. Wider recognition of the importance of forests and wood industries in the nation's economy;
4. Increased forest productivity made possible by improved management practices.

"The impediments to the writing of forest fire insurance are less forceful now than in the past," said Mr. Shepard, "and certainly insurance will benefit forest owners as it has long benefited the owners of buildings and their contents."

New Hampshire's experience with forest insurance dates back many years, W. R. Brown, chairman, New Hampshire Forest and Recreation Committee, pointed out, for in Portsmouth there was formed in 1917 America's first company wholly devoted to writing such policies.

"This proved to be a two year demonstration only," he said, "because the company had only five or six years of statistics to go on, an insufficient backlog of capital, a sketchy fire protection system, and there was then little general interest in better forestry practice. In its two year life, it wrote 67 policies valued at $327,000 at a two percent premium rate, suffered one loss of $600, and then sold out at a profit to an old line commercial company.

"But two percent is too high a rate for general acceptance. Today one large commercial fire company is well along toward offering forest insurance on small, well-selected risks in the southern part of the state at a basic rate of one percent with adjustments up or down according to favorable or unfavorable conditions surrounding an owner of not-too-large an area.

"On the other hand, large timberland owners in the northern part of the state willing to offer volume, value and spread at a somewhat less rate are unable as yet to find takers because large insurance companies have got to be shown before they will combine their resources to carry the millions of valuation involved."

New Hampshire has the country's longest recorded data of actual timber losses by fire, Mr. Brown believes, and it shows "on various valuations of timberlands under state protection ranging from 40 to 60 million dollars, an annual average loss in value of trees by fire without salvage of 1/10 of one percent. This loss would appear highly insurable."

Several insurance companies and forestry officials have collaborated in the preparation of schedules of rates and forms, Mr. Vanderbilt reported, but thus far only a limited interest has been shown by woodland owners and only a small volume of insurance has been written.

This is due, he believes, to uneconomic forest practices, present tax laws, lack of available loans on commercial timber stands, and lack of knowledge of the availability of forest fire insurance.

It was generally agreed by the speakers that insurance companies are waiting for timber owners to prove sufficient volume, spread, and value to make the operation worthwhile, and that timber owners are waiting in turn for the encouragement of a stated low premium from insurance companies.

Appointment of a New England Council sub-committee to work with both interests was recommended.

Two Yankee Pioneering Projects

BOSTON, Mass.—Two unique examples of Yankee pioneering in the field of forestry were described at the forestry and wood industries session of the 27th New England Conference on November 16 — the Penobscot experimental forest jointly developed by nine New England timber-owning companies and the U. S. Forest Service, and the newly-formed Timber Owners Trust of New England.

The 3800-acre Penobscot project grew out of the need for a large forest in the spruce-fir and hardwood country which could be used for demonstations and as a field laboratory for controlled experiments, reported E. L. Giddings, chief forester of the Penobscot Development Company of Great Works, Maine.

"It is a reassuring example of cooperation between the federal government and private industry, with each contributing to an undertaking that should improve appreciably the welfare of the timberland region of northern New England," Mr. Giddings added.

Under the novel arrangement, nine companies, mostly paper manufacturers and owning more than five million acres of timber in the region, "invited a federal bureau to select any tract of land it wished, and then bought the land and leased it to the government for 99 years for practically nothing."

"In addition," he said, "the companies spent $10,000 in building access roads—a most refreshing story in days when the popular pastime is lambasting the government for its numerous shortcomings."

The New England firms backing the Penobscot experimental forest are: Hollingsworth & Whitney Co.; International Paper Co.; S. D. Warren Co.; Great Northern Paper Co.; St. Regis Paper Co.; Eastern Corp.; Dead River Co.; Oxford Paper Co.; and Penobscot Chemical Fibre Co.

The role of the U. S. Forest Service

is to design and carry out experiments in forest management deemed most desirable for the area. "The companies backing the project in no way prescribe what shall be done, or how," Mr. Giddings continued. "And they interfere in no way with the government personnel."

Three major studies are now under way, he said. In the first, different intensities of cutting are being conducted on a series of 10-acre lots. In the second, several 40-acre lots are handled as commercial operations designed to produce "cost-and-return" data for various cutting methods. The third project is a typical "farm woodlot" demonstration, on which detailed financial records are kept to determine the farmer's return in terms of wages for work involved. The woodlot experiment is set up as a concrete example of "how-to-do-it" for the farmers who supply so much of the companies' pulpwood.

Additional studies will be made on forest soils, site qualities, and rates of growth, said Mr. Giddings.

"There is no pressure from the companies to prove anything in a hurry from this forest. They went into the project simply because they wanted to find out how their timberland business might be better operated, and to protect and sustain their supplies of wood. And the organization is so set up that it should be able to weather economic storms and sustain investigations over a long period."

The Timber Owners Trust was described by Nathan Tufts, chairman of the New England Council's Committee on Forestry and Wood Products, as one in which the emphasis "is on capital gains, annual yield, selective cutting, and sound business principles."

Eleven hundred acres in New Hampshire have been selected as the nucleus for operation, said Mr. Tufts, with the expectation of adding to holdings and increasing the size and scope of the Trust.

"It is recognized that improved forest management practices, in a time when timber is being cut faster than our New England lands are growing it, offer advantageous conditions for this unique venture. A capital gains yield of eight percent on investments seems assured under selective cutting over a period of years and through wise operating and marketing practices.

"And profit possibilities become enticing through an integrated program of selling end products direct to consumers. Sound conservation policies will be followed with relation to pulpwood, sugar orchard production, and utilization of wood waste through the manufacture of charcoal."

Participants in the new trust, said to be the first of its kind in the country, include representatives of timber conservation groups, lawyers, bankers and industrialists.

May Declare Newsprint Essential

Newsprint paper will soon be declared essential, clearing the way for a 250,000-ton expansion of producing capacity in this country, it was reported on November 21.

Arthur R. Treanor, retiring as director of the Printing and Publishing Division of the NPA, said the ruling he has sought for months "undoubtedly will be favorable" and may come within a few days.

Mr. Treanor foresaw a slight improvement ahead in newsprint supply and a probability that it will not be necessary to impose a rationing system like that under which newspapers worked during World War II.

Six proposed new mills or additions, representing an estimated 250,000 tons additional annual capacity by 1955, have been hanging fire pending a review of the committee's decision. The plants represent a planned total outlay of about $63 million.

A finding of newsprint essentiality would not automatically permit a go-ahead. In each case the company would have to qualify for the D.P.A. certificate which would entitle it to write off in five years, in depreciation for Federal tax purposes, a portion of the cost of the expansion. The normal amortization is twenty to twenty-five years.

Applications for tax benefits now pending include projects of: the Bowater Paper Co., Inc., in eastern Tennessee, $39,725,000; Southland Paper Mills, Inc., Lufkin, Tex., $15,040,000; West Tacoma Newsprint Co., Steilacoom, Wash., $5 million; Great Northern Paper Co., Millinocket, Maine, $2 million; Michigan Paper Co., Plainwell, Mich., $1,500,000; Crown-Zellerbach Corp., West Lima, Ore., $214,000.

Mr. Treanor has argued that this country, which already is helping to make emergency allocations to foreign newspapers, needs the additional resources to help foster a free flow of information and opinion abroad as well as at home.

Irish Imports

Imports into the Republic of Ireland during the first nine months of 1951, classified as paper, cardboard, etc., rose to the value of £5,724,627 from £3,451,523 in the first nine months of 1950.

Of the January to September, 1951, imports, paper-making materials amounted to 15,366 tons valued at £1,329,878 against 15,891 tons, valued at £467,752 in the corresponding period of 1950.

Imports of coated printing paper in the first nine months of 1951 amounted to 23,609 cwt., valued at £181,196 against 12,427 cwt., valued at £68,681 in the first nine months of 1950.

Newsprint imports from January to September, 1951, were 288,983 cwt., valued at £761,693, as against 383,733 cwt., valued at £804,529 in the first nine months of 1950.

Imports of other non-coated printing paper for the nine months under review were 25,522 cwt., valued at £181,310 against 38,965 cwt., valued at £126,134 in the corresponding period of 1950.

Imports of writing paper in large sheets were 8,985 cwt., valued at £64,564 in the first nine months of 1951, and 16,965 cwt., valued at £59,461 in the like period of 1950.

Fillers and flats for egg boxes imported in the first nine months of 1951 were valued at £45,706 against £28,338 in the corresponding period of 1950.

Imports of strawboard, not worked or corrugated, were valued at £174,575 in the first nine months of 1951, as against £95,736 in the corresponding period last year; and other cardboard, etc., in the piece, at £1,093,994 from January to September 1951, against £588,132 in the like period last year.

In the first nine months of 1951 paper and cardboard valued at £858,124 was exported from the Republic of Ireland, against only £196,091 in the first nine months of 1950.

Of these exports, paper-making materials accounted for £33,645 in the first nine months of 1951, and £24,030 in the first nine months of 1950. Exports of cardboard and pasteboard in the piece were valued at £94,406 in the 1951 period but only £17,168 from January to September, 1950, and exports of fillers and flats were valued at £103,168 in the 1951 period and £78,386 in the corresponding 1950 period.

Re-exports of paper, cardboard, etc., were valued at £17,605 in the first nine months of 1951, and £7,017 in the corresponding period of 1950.

Other values for imports in this group, published in the *Trade Statistics* issued by the Central Statistics Office in Dublin, include:

Article	Value Jan. to Sept. 1951	Value Jan. to Sept. 1950
Packing and wrapping paper	£66,569	£34,038
Tissue paper	£60,238	£19,248
Oiled, waxed and other waterproof paper	£198,104	£112,851
Cigarette paper	£48,402	£39,456
Greaseproof paper	£109,083	£51,649
Imitation parchment	£140,867	£64,769
Gummed paper	£52,310	£34,681
Wall and ceiling paper, printed	£23,238	£30,574
Transparent cellulose wrapping paper (in sheets and rolls)	£178,303	£119,897
Other paper	£160,944	£68,997
Envelopes, notepaper and writing pads	£89,542	£64,294

Imports of empty cardboard containers and parts were valued at £309,168 in the first nine months of 1951 and £245,175 in the corresponding period of 1950.

Imports of card (other than playing cards and postcards) were valued at £69,186 in the first nine months of 1951 and £50,190 in the corresponding period of 1950.

PRICES

The prices below reflect market quotations in New York at the mill level on standard grades. Does not include spot offerings.

PAPER AND BOARD

Standard News, Delivered Ports

Rolls, contract, per ton	$114.00/116.00
Sheets	130.00/ —

Kraft—per cwt. 50# base wgt. OPS Ceiling CPR 88

F.o.b. Southern & Western integrated mills. C.l. Freight allowed up to $10 a ton.

Standard Wrapping, ctr. rolls	$7.75/ —
Butchers, counter rolls	8.25/ —
Standard Bag, mill rolls	7.50/ —
Shipping Sack, mill rolls	7.75/ —
Gumming, mill rolls	8.00/ —
Asphalting, mill rolls	7.75/ —
Envelope, Sub. 20, mill rolls	9.25/ —

Tissues— per ream 24x36 (480); 10 lbs. 2500 lbs or more

Wh. No. 1 Frd.	$2.25 /$2.40
Wh. No. 1 MG	2.25 / 2.40
Wh. No. 1½	1.95 / 2.05
Wh. No. 2	1.75 / 2.00
Kraft Anti-Tar 20x30	2.12 / 2.25
White Anti-Tar 20x30	2.20 / —

Toilet— per case of 100 rolls—1 M sheets

Unbleached 4½x4½	$8.00/$8.25
Unbleached 4½x5	6.60/ —
Bleached 4½x4½	10.00/12.50
Bleached 4½x5	9.85/ —

Per Case of 20 rolls—3000 sheets

Unbleached 4½x4½	$8.00/$9.75
Bleached 4½x4½	6.95/ —

Per Case of 100 rolls—1000 sheets

Facial, 4½x4½, 2-ply	$8.95/10.15

Paper Towels— per case of 3750

Wh. Jr. M'tif'd 9½x9½	$6.40
Br. Sr. M'tif'd 9½x12	4.40
Br. Jr. M'tif'd 9½x9½	3.90
Br. Jr. Sgl. fold 9½x10¾	3.95
Blchd. 7½x11, 24/25 rolls	$7.00/7.55

Manila, per cwt.

No. 1 Jute Tag, 100-lb., sheets*	$20.55/22.55
Reg. Jute M.F. 40-lb., sheets*	19.50/21.50
Wrapping Manila	8.75/10.50
Printing Manila	10.50/12.00

* Less usual allowance for rolls.

Gummed Tape— per bdl., 500 bdls. or more

90-lb. 375 ft. GSI	$7.20 / —
60-lb. 600 ft. GSI	7.20 / —
35-lb. 800 ft. GSI	8.28 / —
35-lb. 500 ft. GSO	6.21 / —

MARKET WOOD PULP

Fourth Quarter Contract Prices. Per Short Air-Dry Ton

	Varying freight allowances		On Dock Atlantic Ports		
	*U. S.	Canadian	*Swedish	*Finnish	*Norwegian
Groundwood	$92.50/ —	‡$95.00/100.00			
Sulfate, Bleached	145.50/ —	190.00/200.00	$230.00/ —	$230.00/ —	$230.00/ —
Semi-bleached Sulfate	140.00/ —				
Sulfate, Unbl.	132.50/ —	145.00/175.00	200.00/ —	200.00/ —	
Sulfite, Blchd.	140.00/ —	160.00/175.00	225.00/ —	225.00/ —	225.00/ —
Sulfite, Unblchd.	132.50/ —	150.00/160.00	200.00/ —	200.00/ —	
Sulfite, Unbl'd (Glassine)		164.00/ —			
Soda, Blchd.	140.00/ —	155.00/160.00			
Sulfite Screenings	72.50/ —				
Sulfate Screenings	67.50/ —				
Groundwood Screenings	60.00/ —				
Unblchd Sulfate Sideruns	132.50/ —				
Stand. News. Sideruns	92.50/ —	106.00 —			

*OPS Ceiling, CPR 49 ‡ F.o.b. Shipping Point.

Boards per ton—

Filled News	$107.50/ —
Plain Chip	105.00/107.50
Blchd. Mla. L-d. Chip	147.50/ —
White Pat. coated 020	170.00/ —
Kraft Liners 42 lb.	115.00/117.50
Kraft Corr. .009	122.50/126.00
Binders Boards	137.50/140.00

The following prices are representative distributors' resale prices:

Rag Content Bonds and Ledgers— White, 20 lb.

Bonds	4 Ctns. per cwt.
100% Rag Ex. No. 1	$70.45/$75.90
100% Rag	63.65/ —
75% Rag	48.15/ —
50% Rag	38.90/ —
25% Rag	31.65/ 33.60

Ledgers	4 Ctns. per cwt.
100% Rag Ex. No. 1	$72.65/$72.80
100% Rag	63.90/ —
75% Rag	49.40/ —
50% Rag	40.20/ —
25% Rag	33.00/ 34.30

Sulphite Bonds and Ledgers White, 20 lb.

Bonds	4 Ctns. per cwt.
Watermarked	$19.00/$20.50
Plain	18.40/ 19.50

Ledgers	4 Ctns. per cwt.
Watermarked	$20.30/$21.80
Plain	19.35/ 20.80

White Book

Conversion Coated	Case
	per cwt.
No. 1	$21.90/$24.65
No. 2	22.15/ 23.40
No. 3	21.90/ 22.40
Machine Coated	
No. 1	$18.40/$18.90
No. 2	16.65/ —
Uncoated	
No. 1 Antique (Watermarked)	$18.65/$19.65
Offset	18.65/ 19.90
A Grade K. F.	18.10/ 19.90
A Grade S. C.	18.65/ 19.40
B Grade K. F.	18.40/ —
B Grade S. C.	17.40/ 19.15

‡ Indicates a price change.

WASTE PAPER MARKET

Prices to mills, per ton, f.o.b. cars shipping point (includes brokers' fee.) These quotations are a partial indication of the price range in each market on the date specified, as gathered from major dealers. ALL PRICES ARE STRICTLY NOMINAL.

	New York Nov. 13	Philadelphia Nov. 14	Boston Nov. 13	Chicago Nov. 5
No. 1 Mixed Paper	nominal	$9.00/ 10.00	$10.00/ —	$10.00/ —
No. 1 News	12.00/ 14.00	10.00/ 14.00	12.00/ 13.00	15.00/ —
Over-issue News	20.00/ 26.00	16.00/ 18.00	15.00/ 22.00	18.00/ —
Corrugated Containers	15.00/ 18.00	14.00/ 16.00	19.00/ 20.00	15.00/ —
Double Kraft Ld. Corr. Cuts	48.00/ 60.00	35.00/ 50.00	45.00/ 46.00	$50.00/ 60.00
100% Kraft Corr. Cuts	65.00/ 80.00	75.00/ 80.00	75.00/ 80.00	85.00/ —
Used Sugar & Flour Bags	60.00/ 65.00	35.00/ 50.00	45.00/ 46.50	40.00/ —
Super Resorted Br. Kraft	65.00/ 70.00	35.00/ 60.00	45.00/ 60.00	40.00/ —
New Br. Kraft Env. Cuts	120.00/130.00	105.00/125.00	100.00/125.00	100.00/ —
New Br. Kraft Cuts	95.00/115.00	85.00/125.00	85.00/105.00	90.00/ —
No. 1 Gdwd Shvs.	50.00/ 55.00	30.00/ 40.00	33.00/ 40.00	30.00/ —
White Newsblanks	75.00/ 80.00	50.00/ 70.00	60.00/ 70.00	50.00/ —
No. 1 Flyleaf Shvs.	55.00/ 60.00	45.00/ 65.00	45.00/ 70.00	60.00/ —
No. 1 Soft Wht. Shvs.	125.00/140.00	125.00/145.00	125.00/145.00	125.00/ —
Super Soft Wht. Shvs.	160.00/165.00	140.00/165.00	140.00/165.00	135.00/ —
Hd. Wht. Shvs.	165.00/175.00	155.00/175.00	150.00/175.00	140.00/ —
Hd. Wht. Env. Cuts	175.00/190.00	175.00/190.00	175.00/190.00	150.00/ —
New Manila Env. Cuts	100.00/120.00	110.00/135.00	110.00/125.00	65.00/ —
Col. Tab Cards	90.00/ 95.00	75.00/ 90.00	80.00/ 95.00	85.00/ —
Manila Tab Cards	130.00/135.00	105.00/135.00	120.00/130.00	100.00/ —
No. 1 Mixed Ledger	80.00/ 90.00	75.00/ 90.00	67.00/ 95.00	90.00/ —
White Ledger	105.00/110.00	100.00/110.00	100.00/110.00	105.00/ —
No. 1 Book & Mag.†	33.00/ 37.00	23.00/ 30.00	29.00/ 32.00	17.00/ —
No. 1 Rep'd. Hvy. Books‡	43.00/ 50.00	30.00/ 40.00	45.00/ 57.00	40.00/ —

† Includes Time & Life; no coarse groundwood. ‡ Not to exceed 10% groundwood. § Deld.

RAG MARKET

New Domestic Cotton Cuttings
OPS Ceiling Price, CPR 28
Delivered Mill Basis

Add 7½% Dealer Commission

No. 1 White Shirts	$21.00
No. 1 Unblchd. Muslins	21.00
Blchd. & Unblchd. Underwears	21.00
Blchd. Canton Flannels	21.00
No. 1 Light Silesias	16.00
No. 1 Light Prints	11.50
No. 1 Blue Overalls	14.50
Suntan Khakis	11.50

Add 10% Dealer Commission

Fancy Shirts	$10.00
Indigo Blues	10.00
Mixed Khakis	8.00
Corduroys	8.00
Cottonades	8.00
No. 1 Washables	6.50

Old Domestic Cotton Rags
(Prices to Dealers, f.o.b. Ship. Pt.)

	Per 100 lbs.
Mixed White	$6.00/$6.50
Cotton Pants & Overalls	6.50/ 6.75
Thirds and Blues, Repacked	5.50/ 6.00
No. 1 Roofing Rags	1.65/ 1.75
No. 2 Roofing Rags	1.20/ 1.30
No. 3 & 4 Roofing Rags	1.10/ 1.20

Bagging
(Prices to Dealers, f.o.b. N. Y.)
PRICES NOMINAL

	Per 100 lbs.
Foreign Gunny	$5.00/$5.50
Domestic Gunny, No. 1	5.00/ 5.50
Heavy Wool Tares	5.50/ 6.00
Foreign Manila Rope	9.00/ 9.25
Domestic Manila Rope	9.00/ 9.25
Jute Strings	6.00/ 6.50
No. 1 Sisal Strings	8.50/ 8.75
Paper Mill Tares	5.25/ 5.50
Foreign Scrap Burlap	4.25/ 4.50
Domestic Scrap Burlap	4.75/ 5.00
Austr. Wool Pouches	7.00/ 7.50
New Burlap Cuttings	7.00/ 7.50

MATERIALS

Aluminum sulfate:
coml. bags, wks.....cwt. 1.65
iron-free, c.l. 3.25

Alcohol, ethyl:
tax free, dms. c.l.....gal. 1.01 / 1.05½
deld. East Miss.

Alcohol, methyl:
Synthetic, Zone 1, dms.
c.l. fit. alld.....gal. .44

Casein, acid prec.:
dom. sh. pt. c.l.....lb. .36 / .41½
imp. ex. dock .....lb. .25 / .38

Caustic soda:
c.l. wks. solid, 76% cwt..... 3.35
flak. & grd. 100-lb. drums... 3.75
liquid 50% tanks.... 2.55
liquid 70% tanks.... 2.65

China clay:
dom. air-float. c.l. wks.
ton 10.00
water-washed, lump, filler.... 11.00
coating ..... 17.60 /30.50
imported, ex whse...short ton 15.20 /28.35

Chlorine:
single-unit tanks, works..cwt. 2.70
multi-unit .....cwt. 3.20 / 4.40

Formaldehyde:
USP, inh. dms, c.l. wks....lb. .0625/ .0675
l.c.l., E. wks..... .0675/ .0725

Fuel oil:
Bunker C, No. 6 Cal. hvy.
tanks, refinery .....bbl. 1.95 / 2.15
light .....bbl. 2.00 / 2.25

Hydrogen peroxide:
USP, 35% cbys. E. of Miss. lb. .23½/ .26½

Lime:
hydrated, bags, wks. .....tons 13.50

Rosin:
B gum, drms, c.l. Savan..cwt. 7.00 / 9.08*
G, H, I, K .....cwt. 9.15 / 9.49*
FF, wood, do.....cwt. 6.80 / 7.30*
* OPS Ceiling, CPR 52.

Rosin size:
70%, gum & pale grds, tank cars, south, sh. pt. ....cwt. 7.50 / 7.60

Salt cake:
dom. bulk, c.l. wks.....ton 17.00
wks. frt. all.....ton 20.00 /22.00

Soda ash:
light, 58%, bags, wks..... 1.50
bulk .....cwt. 1.20

Sodium silicate, 40°:
turbid. c.l. wks.....cwt. 1.30 /
l.c.l. wks. ..... 1.60 / 1.85

Sodium peroxide:
drms. c.l. E. of Miss.....lb. .21
l.c.l. do. .....lb. .21½/ .22

Soybean, protein:
chem. isol, wks, c.l.....lb. .24 / .28
Cinn. and Chic.

Sulfuric acid:
60° Be. cbys. c.l. wks.....cwt. 1.75 / —
l.c.l. wks. .....cwt. 2.05 / 2.85

Sulfur:
crude, c.l. mines, contract, long ton 21.00 /22.00
f.o.b. vessels Gulf ..... 22.50 /23.50

Sulfur dioxide:
liquid, coml. cyl. wks.....lb. .09
multi-unit cars .....lb. .0535

Starches:
pearl corn, bags, c.l. wks...cwt. 6.09 / —
white dextrines, c.l. wks...cwt. 7.48 / —
potato, Idaho, c.l. wks....cwt. 6.00 / —
potato, Maine, c.l. wks....cwt. nominal
tapioca, conv. dextrines...cwt. 6.50 / 7.50

Talc:
domestic, 50-lb. sacks, c.l. wks. .....ton 25.00 /30.00

Titanium dioxide:
anastase, c|l deld., bags...lb. .21 / .21½
l.c.l. deld. .....lb. .22 / .22½
rutile, c.l. deld.....lb. .23 / .23½
l.c.l. deld. .....lb. .24 / .24½

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NEW LITERATURE

Lange, Maxwell & Springer, Ltd., 41-45 Neal St., London, W. C. 2, England. Booklet, "German Books on Chemical and Cognate Subjects, 1939-1950," Second Revised and Extended Edition by A. E. Cummins and S. Vince. The revision is a re-cast of the former work in subject form plus many new titles, some of which are either available in secondhand copies or are in active preparation. Distributed gratis to scientific and industrial libraries and interested individuals.

McGraw-Hill Book Co., 330 West 42nd St., New York 18, N. Y. Book, "Pulp and Paper Manufacture. Vol. 2. Preparation of Stock for Papermaking. Prepared under the direction of the Joint Executive Committee on Vocational Education representing the Pulp and Paper Industry of the United States and Canada. J. Newell Stephenson, Editor-in-Chief. The second of a series of four books on Pulp and Paper Manufacture, the volume reintegrates much of the material covered in Volume IV of a previous series known as "The Manufacture of Pulp and Paper" with modern methods and procedure. Revisions cover agricultural wastes, such as straw and flax; paper stock for board manufacture and deinking processes; new equipment for beating and refining; new materials on finishes for typical papers; fillers and loading, sizing for wet-strength papers; standard testing methods for materials and paper qualities; coloring; and other invaluable material. Available through *Paper Trade Journal*.

National Planning Assn., 800-21st St., N.W., Washington 6, D.C. Book, "Causes of Industrial Peace Under Collective Bargaining," Case Study No. 9, 95 pp., price $1. A comprehensive report on the Minnequa Plant of the Colorado Fuel and Iron Corp., Pueblo, Colo., and two locals of the United Steelworkers of America (CIO).

Norges Eksportrad (Norwegian Export Council), Solplassen 1, Oslo. Book, "Norway—Machinery and Metal Products Exports," fourth annual review in the "Norway" series. Covers the various products offered for export, grouped according to the particular field concerned: logging and wood-processing, shipping, etc. In addition to the production media which can be supplied to these branches, a special section has been set aside for such consumer items as the Norwegian iron and metal-working industry can or intends to export. Cover drawing in full color, 112 pp., illustrated.

Newsprint Service Bureau, 342 Madison Ave., New York 17, N. Y. Brochure, "World Production and Distribution of Newsprint Paper, 1950, by Vernon L. Tipka, Secretary, NSB, in cooperation with the Pulp, Paper and Paperboard Div., NPA, U. S. Dept. of Commerce. Yearly report based on reports from Foreign Service Officers throughout the world.

Ansul Chemical Co., Marinette, Wis. Bulletin, "Extinguishment of Sulfur Fires." Technical copy, revised edition.

Armco Steel Corp., Middletown, Ohio. Bulletin, "Where to Use 17 Chromium Stainless as an Alternate for 18-8." Describes the various properties of 17 chromium stainless, what care to give it, and lists normal applications, alternate uses, questionable applications and unsatisfactory uses. Also, fabricating data bulletin, "Fabrication of Type 430 Stainless Steel." Includes illustrations showing typical

changes in die practice, weld microstructures, and tables listing mechanical properties of fusion welded joints and spot welds.

Chain Belt., 1600 W. Bruce St., Dept. PR, Milwaukee 4, Wis. Bulletin No. 51-2, "Baldwin-Rex Double Pitch Roller Chains." Charts, photos, diagrams, and tables showing in detail both drive and conveyor types, and the standard attachments available. Also describes double pitch chain sprockets.

Cowles Co., Inc., Cayuga, N. Y. Bulletin, "Cowles Aquapulper for Pulping and Defibering Hard Stock." Technical and sales copy on the side-drive design that permits the use of small high-speed impellers.

Engineering Products Co., Inc., 122 S. Michigan Ave., Chicago 2, Ill. Catalog, "Epco Trackage Systems." Details methods used for moving heavy loads inside plants. Illustrated.

Exporters' Digest and International Trade Review, 170 Broadway, New York 38, N. Y. Booklet, "World Trade Data." A reference on international communications (message and mail), electric current, conversion factors, trade fairs, worldwide air services, uniform customs and practice for commercial documentary credits. Fifty cents per copy. 32 pp.

Branson Instruments, Inc., Stamford, Conn. Bulletin, "Metal Wall Thickness Measurement From One Side by the Ultrasonic Method," by N. G. Branson. Reprint from *Electrical Engineering*. Discusses the principles of metal wall thickness measurement from one side and an instrument for making such measurements. The selection of quartz crystal and range, accuracy, and limitations of the method are covered. Full text of a conference paper presented at the AIEE Committee on Electronics.

Minneapolis-Honeywell Regulator Co., Brown Instruments Div., Wayne and Windrim Aves., Philadelphia 44, Pa. Specification sheet 769, "Tel-O-Set and Miniature Strip Chart Recorders." Includes several views of the recorders as well as dimension and application drawings. Instrumentation data sheet 10.14-6, "Dust Recorder Checks Operation of Precipitators." Operation and application data with charts.

Industrial Air Co., 1620 Hyde Park Ave., Hyde Park, Mass. Brochure, "Industaire Paper Machine Hoods," Unit 73, Paper Dryers. Descriptive and illustrated copy on typical illustrations in paper mills. Also briefs vapor absorption systems and heating, ventilating, air conditioning and auxiliary systems which the company designs and engineers.

PEOPLE

(Continued from page 14)

Donald F. Morris

DONALD F. MORRIS, Chillicothe, Ohio, has been appointed vice-president in Charge of Operations for The Mead Corp. He succeeds HOWARD E. WHITAKER who became executive vice-president in April 1951. Mr. Morris, vice-president for Procurement since 1949, will continue as executive head of the company's purchasing staff.

CLINTON K. ROYCE, who recently resigned as Head of the Packaging Section of the Department of the Navy's Office of Naval Material, will join the staff of Vanant Products, Milwaukee, Wis., manufacturers of Sus-Rap and other packaging materials. Mr. Royce who has also served as Chairman of the Technical Committee on Packaging, Federal Specifications Board for the past five years, is a Lieutenant Commander in the Naval Reserve on inactive duty, and will hold the title of Technical Director and Assistant to Vanant's general manager, Paul Van Antwerpen.

THOMAS L. DANIELS, president of Archer-Daniels Midland Co., Minneapolis, and C. GORDON COCKSHUTT, Brantford, Ontario, businessman, are now members of the Minnesota and Ontario Paper Co's. board of directors.

L. LAWRENCE LEWIS has been appointed director of sales of the American Paper Box Co. Ltd. M. A. GOLDSTEIN has been appointed comptroller of the company. He joined the firm in 1937.

CARL R. SPADT, recently released after 12 months service with the U. S. Army, has rejoined the sales staff of United Board and Carton Corp., Syracuse, New York. He will be assigned to the eastern Pennsylvania sales territory, with headquarters in Bethlehem, Mr. Spadt entered United's sales training course May, 1950. He was recalled to the Army in October.

CORROSION CRIPPLES-MORE WAYS THAN ONE

Valuable products as well as vital equipment are threatened

Corrosion takes its toll in more ways than one—it eats away costly, hard-to-get equipment—wastes man-hours while plants are shut down for repairs—and causes loss of vitally-needed products through contamination.

Every industry suffers from corrosion in some form, yet much of this waste can be avoided by taking these steps:

1. Check manufacturing equipment, storage tanks, and other items exposed to corrosive fumes, acids, alkalies, or moisture.
2. Arrange to protect them with AMERCOAT—the corrosion resistant coatings, each built to conquer specific industrial corrosion problems.

Manufacturers in nearly every industry have found that it pays to protect—protect with AMERCOAT.

AMERCOAT CORPORATION

A division of
American Pipe and Construction Co.
4809 Firestone Blvd., South Gate, Calif.

2-51b

CURTIS M. HUTCHINS, Bangor, Maine, has been elected a director of Hollingsworth & Whitney. Mr. Hutchins succeeds WALTER B. MERLIN who retired after 68 years with the company. Mr. Hutchins was formerly president of the American Pulpwood Assn. and holds directorships in several other corporations.

THOMAS B. McCABE, president of the Scott Paper Co., Chester, Pa., has been elected a director of General Electric Co. Mr. McCabe was chairman of the board of governors, Federal Reserve System, from 1948 until April 1951. He is a member of the Business Advisory Council, Department of Commerce; trustee, Committee for Economic Development; and a member of the board of managers, Swarthmore College.

R. W. PORTER, editorial director of *Paper Industry*, is joining the Board Products Publishing Co. as editor of *Fiber Containers*.

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Presented in U. S. and Canada by
GEIGY COMPANY, INC.
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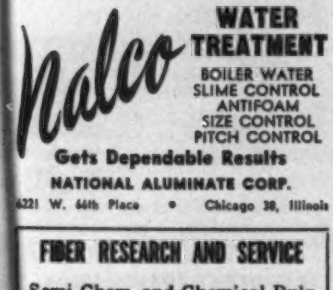


ASSOCIATIONS

Lake Erie Discusses Converter's Problems

The Lake Erie Section of TAPPI met on October 19. William Hasselo of Container Corp. of America presided as Chairman. Sixty-four were in attendance.

Two speakers covered the subject for the evening, "The Converter's Typical Problems."

P. H. McDowell, director of purchases, A. L. Garber Co., Ashland, Ohio covered the subject with respect to folding cartons.

R. O. Spalding, Corrugated Quality Supervisor, Owen-Illinois Glass Co., Toledo, Ohio handled the topic with respect to corrugated containers. He covered typical problems in his company illustrating the discussion with examples of corrugating containers used to package glass items. The need of properly designed containers to minimize breakage and the steps in the development of a suitable container having proper functionability were brought out. Mr. Spalding stated that their technical people are now engaged in the development of a suitable dynamic test to measure and record minute increments of impact. Present methods of evaluating corrugated containers are not adequate when dealing with the design of corrugated containers used for packaging items in glass. Mr. Spalding also covered examples where changes in printing copy have resulted in not only less trouble in its manufacture but also resulted in a better appearance with more sales value to the customer.

Mr. McDowell covered defects in boxboard which lead to problems in their plant. Proper moisture content, uniform basis weight and caliper, adequate surface treatment for prevention of picking and resistance to gloss inks, freedom from dirt, and proper sheet and roll dimensions were some of the defects discussed.

The November 16th meeting on the subject of "Does a Training Program Pay?" will be covered by two speakers: William Grier of the Industrial Rayon Corp., Painesville, Ohio, who is a member of the Training Directors' Assn., Ohio Section, and Stewart Drum, superintendent of the Corrugating Division, Container Corp. of America, Cleveland, Ohio, who is a member of the Training Directors' Assn., Illinois Section.

175 At Engineering Meeting At Longview

The Pacific Section of TAPPI held its Annual Engineering Meeting at Longview, Wash. on November 13. About 175 were in attendance and showed keen interest in the program.

Donald G. Felthous, Pulp Divison Weyerhaeuser Timber Co., Longview, Wash., was Moderator.

L. E. Hill, Jr., plant engineer, Pulp Division, Weyerhaeuser Timber Co., Everett, Wash. spoke on "Observations on Chip Handling from Barges and Cars". "Corrosion of Electrical Equipment in Pulp and Paper Mills" was covered by Harold Springer, chief electrician of Rayonier Inc., Port Angeles, Wash. James E. Maxwell of U. S. Department of Commerce handled the subject of "Pulp and Paper Operations Under the C.M.P. Program" and Donald M. Platt, superintendent of Electrical Engineering, Crown Zellerbach Corp., Camas, Wash. covered "Substitution of Non-Critical for Critical Materials in the Pulp and Paper Industry".

The Technical meeting was started at 2:00 P.M. and was followed by a Social Hour at the Hotel Monticello. The speaker at the dinner, which was also held at the Monticello, was Walter J. DeLong, Director of Public Information, Weyerhaeuser Timber Co., Tacoma, Wash.

Stark Elected President Gummed Industries Assn.

At the twenty-second Annual Convention of the Gummed Industries Assn., held at the Greenbrier Hotel, White Sulphur Springs, W. Va., on October 26th and 27th, Henry W. Stark, of the Rexford Paper Co., Milwaukee, Wis., was unanimously elected President of the association, succeeding Arno L. Zinke of the Mid-States Gummed Paper Co. who had rounded out his second term as President of that association.

Roth F. Herrlinger, President of the Gummed Products Co., Troy, Ohio, was unanimously elected Vice-President of the association.

Philip O. Deitsch was again chosen to succeed himself as the Managing Director of the association marking the fifteenth year of his continuous service. In addition to the officers mentioned above the members of the Board elected at the Annual Meeting are: R. A. Chase, St. Regis Paper Co.; R. F. Herrlinger, Gummed Products Co.; Orville Johnson, Western Gummed and Coated Products Division Crown-Zellerbach Corp.; R. J. Mitchell, Dennison Manufacturing Co.; T. H. Mittendorf, Hudson Pulp and Paper Corp.; H. W. Stark, Jr., Rexford Paper Co.; F. A. Stocker, Stocker Manufacturing Co.; Arno Zinke, Mid-States Gummed Paper Co.

Scholarships

E. E. Ludwig (right), Chairman of the Advisory Committee on Pulp and Paper Technology at Western Michigan College, Kalamazoo, Mich., presents $200 scholarship checks to freshmen Maurice H. Metzelaar, Constantine, Mich.; William J. Fondow, Appleton, Wis.; and Leonard J. Timmer, Kalamazoo, Mich. The Scholarships are awarded by Paper Twine Assn., 1951.

Gerald Hale

Winner of 1951 Student award in Salesmanship at Pulp & Paper Course at Western Michigan College given by Paper Twine Assn.

Ray James

Winner of 1951 Student award on Pulp & Paper Course at Western Michigan College.

SUPPLIERS

BORDEN CO.'s chemical division, recently feted George O. Luckie, chief engineer, at the annual Quarter Century Club banquet in New York City. Theodore G. Montague, president of the Borden Co., awarded diamond-set gold pins to Mr. Luckie and 15 others from the concern's national executive offices staff who have been with the company 25 years. Also honored were nine employees who have served 40 years.

COMMONWEALTH ENGINEERING CO. has appointed Alfred Lippman, Jr., as general manager of its laboratories. Mr. Lippman was with the Bay Chemical Co., a division of Morton Salt Co., for nineteen years, the last twelve of which he was manager in charge of production, research and development.

BJORKSTEN RESEARCH LABORATORIES, Inc., have appointed L. A. Roe director of the mining and metallurgical section.

Mr. Roe comes to Bjorksten Research Laboratories from Jones and Laughlin Steel Corp., where he was Technical Supervisor of Ore Research. For Bjorksten Laboratories he will direct activities in a new metallurgical section which will undertake industrial research on the beneficiation of ores, as well as application of flotation methods to industrial waste treatment and chemical processing.

GENERAL ELECTRIC CO's. Specialty Transformer and Ballast Department has added the following to its sales organization:

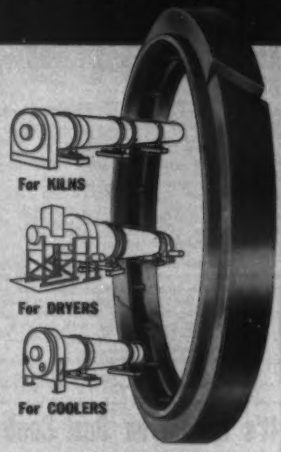
H. K. Pritchard, manager of general purpose transformer sales; J. P. Coughlin manager of aircraft and electronic transformer sales; and A. E. Rowe manager of lighting component sales.

AMERICAN CYANAMID announced that it has reduced its price schedule on the recently introduced AEROSOL OT-B wetting agent by about 15%. The new wetting agent is a concentrated quick-dissolving powder that can be shipped economically in non-returnable fibre drums instead of the stainless steel drums in which liquid wetting agents are shipped.

DEXTER CHEMICAL CORP. has appointed Philip Swartz as the sales and service representative in Pennsylvania.

Mr. Swartz has been active in the textile weaving and processing fields for over 25 years. His past years spent in chemical sales have been preceded by associations with the new Philadelphia QM Laboratories and the U.S.A.F. textiles sections.

Reduce Production Losses
DUE TO DOWN TIME



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GEARS • PINIONS • METAL TIRES • TRUNNIONS • SHEAVES • SPROCKETS • CRUSHER PARTS • RACKS AND PINIONS

REPLACE WORN OR CRACKED TIRES WITH
Stroh
DIAGONALLY CORED SPLIT
TIRES

Stroh diagonally cored split tires can be installed on kilns, coolers or dryers in *as little as 36 hours*—including reaming of holes and riveting. No need to tear out sections or disturb shell alignment. Mating surfaces, welded after installation, cannot loosen under action of load or heat. Welded joints do not "hump" and roll smooth in operation.

Write today!

Stroh PROCESS STEEL CO.
PITTSBURGH 12, PENNA., U.S.A.

AMERICAN PAPER AND PULP ASSOCIATION'S PAPER PRODUCTION RATIO REPORT

(Production as per cent of normal capacity)

COMPARATIVE WEEKLY SUMMARIES

1951	Oct. 13 100.1	Oct. 20 101.2	Oct. 27 101.2	Nov. 3 101.3r	Nov. 10 100.1
1950	Oct. 14 101.7	Oct. 21 101.4	Oct. 28 101.1	Nov. 4 102.3	Nov. 11 101.9

COMPARATIVE MONTHLY SUMMARIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Avg.
1950	92.6	95.6	96.7	95.4	96.4	97.7	85.3	99.6	96.1	101.0	99.6	91.2	95.8
1951	99.3	101.3	101.9	102.8	102.2	100.1	88.6	98.9‡	94.8‡	110.8‡			

‡ Preliminary.
r Revised.

COMPARATIVE YEARLY SUMMARIES

	1944	1945	1946	1947	1948	1949	1950	1951
Year to Date	88.5	89.4	101.3	104.3	97.2	87.9	96.1	99.8
Year Average	88.1	89.4	101.1	104.3	96.2	88.6	95.8	

PAPERBOARD OPERATING RATIOS†

1951	Oct. 13 90	Oct. 20 89	Oct. 27 85	Nov. 3 85	Nov. 10 86
1950	Oct. 14 102	Oct. 21 101	Oct. 28 104	Nov. 4 102	Nov. 11 101

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Ave.
1950	88	92	91	92	91	94	82	100	96	102	101	95	94
1951	102	105	104	105	104	103	84	94	86	87			

All of the above data is based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

Note: The black line on the chart shows the ratio through December 1950 on the basis of 6-day capacity. Beginning with January 1950 the ratio is shown on the new basis of normal 6 and 7-day capacities by the colored line. Paperboard operating ratios continue on the basis of a 6-day week.

† Per cent of operation based on "inch-hours" reported to the National Paperboard Association.

OBITUARIES

William E. Corbin, prominent retired Brown Co. executive died recently at the age of 82 at his home at Cascade, N. H.—less than a mile from the paper machine operated by Brown Co. which was named "Mr. Nibroc"—Corbin spelled backwards—in his honor.

Frederick E. Williamson, who has been vice-president and general manager of the Consolidated Paper Co. for twenty-three years when he retired in 1944, died November 11. His widow, Margaret Brown Williamson; a son, A. Frederick Williamson; a brother, State Senator Pliny W. Williamson; and two grandchildren survive.

Howard W. Jencks, 80, president and treasurer of Howard W. Jencks, Inc., paper jobbers, of 63 Basset street, Providence, R. I., died November 15. Before founding the present firm he was associated with his father and uncle in the paper box business of Charles W. Jencks & Bros., becoming president and treasurer upon the death of his father.

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POIRIER CONTROL CO.
WATERVILLE, MAINE

Specialists in Stock Control Equipment for Pulp and Paper Mills

NOVEMBER NEWSPRINT REPORT

NEWSPRINT ASSOCIATION OF CANADA, MONTREAL

I. PRODUCTION AND SHIPMENTS in short tons: 2,000 pounds		OCTOBER 1951	OCTOBER 1950	OCTOBER Percent Change	YEAR TO DATE 1951	YEAR TO DATE 1950	YEAR TO DATE Percent Change
1. Canadian Production: including Newfoundland	mo. and year to date	492,475	456,443	+ 7.9	4,609,260	4,391,291	+ 5.0
	per working day	18,240	17,556	+ 3.9	17,879	17,113	+ 4.5
	percent of capacity ..	104.8	103.1		102.7	100.5	
2. Canadian Shipments: including Newfoundland	to United States	432,554	410,601	+ 5.3	3,979,525	3,928,182	+ 1.3
	to Canadian Consumers	32,971	32,227	+ 2.3	298,315	290,904	+ 2.5
	to Other Markets	31,885	22,425	+42.2	273,196	165,064	+65.5
	total: all markets	497,410	465,253	+ 6.9	4,551,036	4,384,150	+ 3.8
3. U. S. Production:..	mo. and year to date	96,173	91,305	+ 5.3	918,177	841,368	+ 9.1
4. U. S. Shipments:..	to U.S. Consumers..	92,658	91,395	+ 1.4	907,759	831,306	+ 9.2
	to Other Markets	967	1,384	—30.1	7,679	13,053	—41.2
5. U. S. Imports from Europe:	total: all markets	93,625	92,779	+ .9	915,438	844,359	+ 8.4
	*estimate; see Table 8	*18,100	10,876	+66.4	170,075	139,358	+22.0

II. CONSUMPTION AND STOCKS in short tons: 2,000 pounds		OCTOBER 1951	OCTOBER 1950	OCTOBER Percent Change	YEAR TO DATE 1951	YEAR TO DATE 1950	YEAR TO DATE Percent Change
6. U. S. Consumption:	estimated total	529,774	550,047	— 3.7	4,863,282	4,883,017	— .4
7. North American Stocks:	U.S. Consumers	786,552	624,636	+25.9	786,552	624,636	+25.9
	Canadian Mills	147,366	128,331	+14.8	147,366	128,331	+14.8
	U.S. Mills	10,980	7,823	+40.4	10,980	7,823	+40.4
	estimated total	944,898	760,790	+24.2	944,898	760,790	+24.2
8. A.N.P.A. Report:.. 525 Newspapers	Consumption	405,277	420,786	— 3.7	3,720,411	3,735,508	— .4
	Stocks (tons)	535,133	445,114	+20.2	535,133	445,114	+20.2
	Stocks (days)	41	33		41	33	

CLEARING HOUSE

HELP WANTED

MEN WANTED—POSITIONS OPEN

We can place—Superintendents and managers for folding box and converting plants, salaries $7,000-$12,000 year; supt. Cylinder board mill (North); board mill supt., Fourdrinier and Cylinder machine (South); supt. .009 corrugated medium board (North); asst. supts. for box board bills (several).

Chemists, asst. chemists and laboratory men, salary $3,000-$9,000; master mechanics, mechanical, electrical and plant engineers, salary range $5,000-$10,000; salesmen to sell paper mill equipment, chemicals, etc.; machine tenders and back tenders; night foreman sulphite pulping.

LIST YOUR CONFIDENTIAL APPLICATION WITH US to keep informed of attractive positions open in the pulp and paper mills.

CHARLES P. RAYMOND SERVICE, Inc.
294 Washington St., Boston 8, Mass.

SPECIALISTS IN PLACING PULP AND PAPER MILL EXECUTIVES N-23

BEATER ROOM FOREMAN

Excellent opening available for experienced shift beater room foreman for fine grades of paper. Must be good on colors and handling men. Location West Coast. Give complete details first letter. Address replies to Box 51-564, c/o Paper Trade Journal. N-23

SULFITE FOREMAN

West Coast Pulp and Paper Mill needs an experienced sulphite pulp mill shift foreman. Give complete resume of experience and availability in first letter. Excellent opportunity with progressive company. Address replies to Box 51-563 c/o Paper Trade Journal. N-23

WANTED—Master Mechanic or Assistant for modern 3-Machine Tissue Mill. Progressive management; expansion program now under way. Fine opportunity for young/middle aged man to advance. Substantial paper mill mechanical experience with electrical background desirable. Give complete resume of experience in letter to Box 51-442 care Paper Trade Journal. Replies held strictly confidential. TF

SALARIED POSITIONS $2,500 to $35,000. We offer the original personal employment service (established 41 years). Procedure of highest ethical standards in individualized to your personal requirements. Identity covered; present position protected. Ask for particulars. R. W. BIXBY, INC. —117 Dun Bldg., Buffalo, 2, N. Y. TF

HELP WANTED

WORKING SUPERINTENDENT for small fast growing Eastern mill making lightweight specialties. Cylinder machine experience essential. State qualifications and salary expected. Address Box 51-596 care Paper Trade Journal. TF

SALES ENGINEER—Engineer with pulp mill experience wanted by well established machinery firm. Opportunity for advancement. Address Box 51-516 care Paper Trade Journal. TF

WANTED — Machine Tenders and Back Tenders for corrugating medium and liner mill, Fourdrinier and cylinder machines. Located in Western Pennsylvania; good working conditions; pleasant surroundings and very good labor relations. Call collect—Tarentum 1470, TARENTUM PRODUCTS CORPORATION, Tarentum, Pa. TF

RESEARCH CHEMIST: — Excellent opportunity for chemist or chemical engineer in research laboratory of large chemical company. Require man with several years experience in paper industry, preferably with advanced degree. Submit resume. Address Box 51-556 care Paper Trade Journal. N-23

FINE PAPER MILL: Middle Atlantic Area has long range opportunity for technically trained man in production control and development. Experience preferred but not essential. Excellent possibilities for right man. Address Box 51-568 care Paper Trade Journal. N-23

CONSULTING ENGINEER ASSISTANT—Exceptional opportunity for qualified engineer with minimum 15 years applicable experience to carry out investigations, reports, estimates and design supervision on pulp, paper and allied projects, with long established firm of engineers. Address Box 51-576 care Paper Trade Journal. D-14

MECHANICAL ENGINEER—National Paper Converter desires mechanical engineer with machinery design experience. Must be willing to do board work. Excellent opportunity. Must locate in Dallas, Texas. Address Box 51-581 care Paper Trade Journal. N-23

WANTED by well established Rubber Band Manufacturer, side line salesmen with nonconflicting lines. Attractive offer. Write P. O. Box 869, Aliance, Ohio. N-30

YOUNG LADY or MAN—General office work —handle mail, correspondence, etc. One with paper experience preferred. 5 day week. Congenial surroundings. Address Box 51-599 care Paper Trade Journal. N-23

SITUATIONS WANTED

CHEMICAL ENGINEER

Eleven years experience in kraft pulp and paper including modern bleaching. Proven record in technical control, mill start-ups and solution of operating problems. Presently employed, seeks responsible position with progressive firm.

Reply Box 51-578 care paper Trade Journal. N-30

SUPERINTENDENT - MANAGER. Paper Bags—grocery, sacks and specialties. Interested in making change after end of year if suitable opportunity is presented. Proven abilities handling labor relations, production and quality and general administration. Not an adjustor but have sound knowledge of bag and printing equipment and procedures. Will consider position as assistant to overburdened owner or general manager. Address Box 51-592 care Paper Trade Journal. N-30

SITUATIONS WANTED

MASTER MECHANIC or Maintenance Superintendent having at least 10 years practical paper mill experience and preferable technical engineering training. Good opportunity for aggressive man. Address Box 51-517 care Paper Trade Journal. N-23

PAPER MILL SUPERINTENDENT for light weight specialty hydrated papers. Practical experience important, technical education preferable. Must have mechanical knowledge of paper making experience. Address Box 51-518 care Paper Trade Journal. N-23

CHEMICAL ENGINEER—20 years technical and management experience, paper coating, coated abrasives, coating and converting machinery, resins and specialties. Desire technical or production position with established company. Address Box 51-471 care Paper Trade Journal. N-23

SUPERINTENDENT — Thoroughly experienced papermaker desires to make new connections. Conventional or Yankee Fourdriniers, light and heavyweight specialties. References. Address Box 51-487 care Paper Trade Journal. D-28

PLANT MANAGER—Paper and Board and their conversion; wants challenging opportunity. Highly successful in organization; administration; labor relations and high level production. Presently employed. Address Box 51-463 care Paper Trade Journal. N-30

POSITION WANTED—Paper Mill Manager-Superintendent. Available January 1952. Age 46. Take full charge. Wealth of experience in administration, operation and maintenance. Best of labor relations. Address Box 51-586 care Paper Trade Journal. N-23

GRADUATE INDUSTRIAL CHEMIST seeks immediate position in research, development or production and quality control in sulfate pulping. One and a half years experience in the above lines. Draft exempt. Address Box 51-590 care Paper Trade Journal. N-30

FOR SALE

FOR SALE

Greenawalt Black Liquor Soda Recovery System suitable for a plant making kraft or semi-chemical pulp at rate of 25 tons pulp per day. Original cost over $175,000. Will consider offer.

Box 51-594 c/o Paper Trade Journal.

N-23

RATES FOR CLEARING HOUSE ADVERTISING

HELP WANTED—75c a line. Minimum charge $3.75.

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FOR SALE

FOR SALE—BOARD MILL
100" CYLINDER MACHINE

producing 75 tons in 24 hours. For further particulars address

Box 51-598 care
Paper Trade Journal. N-23

FOR SALE
PAPER MILL IN THE EAST

Two cylinder machines, 74" trim. 30 tons production. Suitable for newsprint.

Address Box 51-597
care Paper Trade Journal. N-23

FOR SALE—62" Score Cut and 72" Shear Cut Cameron Slitters and Rewinders. Address Box 51-565 care Paper Trade Journal. TF

FOR SALE

PAPER COATING MACHINERY MANUFACTURERS — Waxing, Oiling, Carbon Laboratory Coating and Treating and Flat Ream Measuring and Converting Machines. New improvement. THE MAYER MACHINE COMPANY, INC., 1313 Buffalo Road, Rochester, 11, N. Y. TF

FOR SALE—Yankee Beloit Dryer size ten feet by eleven feet face, ground ready to run, immediate shipment. Has been drying fifty five thousand pounds daily and being replaced with larger roll. Jay Corporation, 52 Wall St., New York, N. Y. Phone BO 9-3005. N-30

FOR SALE—One 162" face, 12" diameter four drum winder and slitter. Winds 60" rolls. Now in operation. Available around February 1, 1952. Inspection invited. GLOBE ROOFING PRODUCTS CO., INC., P. O. Box 430, Whiting, Indiana. N-30

FOR SALE—52" Cameron type 8 Model 5 Slitter; 48"Kidder Model CH shear cut slitter; 76" Cameron Rewinder; 75" Moore & White Upright 2 drum Reel; 42" Moore & White Sheeter; 100" Dillon Sheeter. Thomas W. Hall Company, Inc., 120 West 42nd St., New York, 18. TF

FOR SALE

Used dryers now operating on 40 lbs. steam pressure.

34 dryers—48" x 124"
32 dryers—48" x 118"

Box #51-523 care Paper Trade Journal. N-30

FOR SALE
TWO BEAUTIFUL SLITTERS AND REWINDERS

1—48" Meisel Series OP, shear cut.
1—62" Sock Duplex rewind, razor blade. Suitable for paper and plastics.

Address reply to: Gibbs-Brower Co., Inc. 21 East 40th Street, New York 16, N. Y.

FOR SALE—60" Hamblet Sheeter with 8 roll backstand and Erie Layboy. Address Box 51-589 care Paper Trade Journal. N-23

ROSS PAPER MACHINERY CO.

261 PASSAIC STREET
NEWARK 4, N. J.

CONVERTING PAPER MAKING EQUIPMENT — NEW, USED, REBUILT PAPER AND PULP MACHINERY

MACHINERY WANTED FOR OUTRIGHT PURCHASE
From a Single Item to A Complete Mill.

BEATERS
1—Ditts 750 lb. Iron Tub. Roll 44" face x 36" diameter.
1—Downingtown 1000 lb. Iron Tub. New roll 48" face x 48" diameter.

BELTING—NEW
87 feet 8" 13 ply Goodyear Rubber Belting.
180 feet 8" 4 ply Silver Duck Transmission belt.

CALENDER ROLLS
46 Chilled Iron Rolls—Assorted sizes.

CALENDER STACKS
1—6 roll—62". All rolls bored for steam.
1—Lobdell 6 roll 124" Calender Stack, with doctors and drives.
1—Farrel Birmingham 110" Calender Stack with doctors. 2 rolls bored for steam.

CONVEYOR
1—18½ ft. long x 36" wide—with motor.

CYLINDER MOLDS
1—134" face x 36" diameter, with stainless steel shafts.

DAMPENER
1—Valley Micromist Unit for water finish on paper—120" Deckle.

DRYERS
2—124" face x 48" diameter.
1—77" face x 48" diameter—with gear.
1—129" face x 19" diameter—Baby Dryer.
1—102" face x 48" diameter, with bearings.
3—110" face x 42" diameter with bearings and gears.
1—109" face x 42" diameter Creping Dryer.
4—42" face x 36" diameter, with trunnions, gears and bearings.
18—48" face x 48" diameter, with gears, bearings and steam joints.
21—120" face x 42" diameter.
3—110" face x 48" diameter.
2—103" face x 48" diameter.
1—104" face x 36" diameter.
2—116" face x 36" diameter, with gears and bearings.

EXTRACTOR ROLLS
1—Downingtown Extractor Roll 120" face x 24" diameter. Anti friction bearings.

FILTERS
1—Oliver Vacuum Filter. Cylinder 9' face x 5' 6" diameter. Iron end vat.

FLAT SCREENS
1—6 plate Sandy Hill Roller Shoe with scrapers.
6—Harmon 12 plate.
1—Sandy Hill 12 plate roller shoe.
3—Bagley & Sewall 8 plate, with scrapers and plates.
10—Sandy Hill 12 plate roller shoes.

HYDRAPULPER
1—Sharlie Brothers 10' batch Hydrapulper with hydraulic dump valve and skip hoist. Complete, including drive—less motor. New 1947.

HYDRAULIC PRESS
1—Thorne 200 ton. Steam platens. 40"x40" with pump.

JORDANS
1—#6 Miami, for motor drive.
1—Jones Majestics with base and couplings—
1—#3 Aggleton with base and coupling.
1—Jones Majestic Stainless Steel Filling.
3—E. D. Jones Pony, 5/16" stainless steel fillings—banded plugs. Spare new fillings.
1—Smith & Winchester Stainless with granite fillings.

MOTORS
1—Allis Chalmers 30 h.p. 440 v. 660 r.p.m.
2—Westinghouse 100 h.p. slip ring, 440 v. 3 ph., 60 cyc. 690 r.p.m.
1—Crocker Wheeler 100 h.p. slip ring, 440 v., 3 ph. 60 cyc. 710 r.p.m.
1—General Electric 100 h.p. 440 v., 3 ph., 60 cyc., 575 r.p.m.
1—Western Electric 100 h.p. 440 v., 3 ph., 60 cyc., 695 r.p.m.
25 others 440 v. motors from 2 h.p. to 15 h.p.

PULP EQUIPMENT
1—Mitts & Merrill #17 Pulpwood chipper.
1—Bird ball bearing Pulp Screen. Practically new. Used 6 months.
2—APMEW Ball Bearing Pulp Screens—30 ton capacity—outward flow.
1—O. J. Murray 10' x 25' Barking Drum.
1—Carthage 16 knife Chipper 16" spout with belt drive
1—Appleton motor driven log splitter, for 2 or 4 ft. wood, up to 24" diameter.

PULPERS
2—#2 Leaneye.

PUMPS
44—Centrifugal Pumps, open & closed impellers. Direct connected or Belt Drives. Extended base for motor. Assorted capacities and heads. Most used less than one year.

REDUCERS
1—Link Belt 40 h.p. Ratio 2.2-1, 800 r.p.m.-227 r.p.m.

ROLLS—PRESS, COUCH, etc.
32—Press rolls, brass and rubber covered.
14—Couch rolls, brass and rubber covered.
250—Brass and steel carrying rolls.

ROTARY SCREENS
2—#2A Bird Rotaries. Copper vats.

RUBBER COVERED COUCH ROLL
1—New 110" face x 18" diameter—1" rubber.

SCREW PRESSES
1—Valley Voith Screw Press Size 2.
1—Valley Voith Screw Press—enclosed drive.

SHEETERS
1—Hamblet 124" Duplex Sheeter with maxim layboy—8 roll backstand—motor and starter.
1—Moore & White Simplex 114" Sheeter with slitters—counter. Maxim layboy overlapping delivery. 8 roll backstand. Motor and starter.
1—48" Kidder Spot Sheeter.
1—64" Duplex Dillon with 15 roll Back Stand.
1—Moore & White 91" with Erie Layboy and 10 roll backstand, with motor.
1—Beloit 112" duplex Sheet Cutter with duplex overlapping layboy, drive and motor.

SHREDDERS
1—American 32" Hammermill, anti-friction bearings.
1—Jeffrey 28½" Knives—7 knife rotor—6 knife bed plate. Ball bearing.

SLITTERS AND WINDERS
1—Beloit 125" Paper Machine Slitter and Rewinder—42" rewind.
1—Hudson Sharp 25W—60" Wax roll slitter and rewinder. New 1947.
2—Cameron 42"—Model 6—24" rewind.
2—Meisel 42".
1—Cameron 42"—Model 26.
1—Beloit 80" 2 drum, with Lewellyn Drive, shear cut slitters, backstand—34" rewind.

STEAM TURBINES
1—De Laval 225 h.p. initial pressure 140 p.s.i. Exhaust pressure 35 p.s.i. Complete with gear reducer.
1—De Laval Variable speed—375 h.p. at 135 gauge and 30 p.s.i. exhaust. Complete with gear reducer.

STOCK PUMPS
1—Sharlie 10 x 20 Single Plunger Pump.
2—Beloit 8x10 Triplex.
2—Deming 8 x 8 Triplex—all bronze. New 1947.

SUCTION COUCH ROLLS
2—Millspaugh 36" diameter x 234" drilled face with enclosed drive, water cooled bearings, 12" suction boxes and 1 spare shell.

SUCTION PRESS ROLLS
1—Sandusky 97" drilled face x 14" diameter.

SUPERCALENDERS
1—Norwood 74" 9 roll with unwind and rewind. Complete with drive and 2 spare rolls.
1—Norwood 64" 10 roll with unwind and rewind. Complete with drive and 2 spare rolls.
1—Norwood 58" 9 roll with unwind and rewind. Complete with drive and 2 spare rolls.

THICKENER
1—Woods Thickener with anti friction bearing. Cylinder 48" diameter x 114" face.

TOILET TISSUE PERFORATOR
1—Paper Converting Machine Co. Model 141 automatic 81" Perforator, slitter and Winder—with three motors—ball bearing.

VACUUM PUMPS
4—Nash ½ H-5 Vacuum Pumps
2—Nash #4.
1—Nash #7.
1—#4 Nash Hytor—belt driven.

WAXING MACHINES
1—64" Potdevin complete from 1st off to single roll rewind section.
1—54" Special—complete from 2 roll 1st off to single roll rewind.

WET MACHINES
1—Appleton 74" face x 36" diameter cylinder.
1—Appleton 74" face x 39" diameter cylinder.

WRAPPING MACHINE
1—Morrow Stevens type IC. Package thickness ¾" to 5". Used 30 days.

WHY LIST YOUR EQUIPMENT? — WE WILL BUY IT.

FOR SALE

CAMERON SLITTERS

1—52" Type 8-S.
1—42" Type 6.
1—42" and 1—42" Type 40-2A.
1—42" and 1—62" Type 40-1-AF.
1—62" Type 10.
1—72" Type 5.
1—82" Type 10.

OTHER SLITTERS

1—62" Beck Duplex Rewind Razor Blade Slitter & Rewinder. Suitable for paper and plastics.
1—48" Meisel Shear Cut, Series O.P. 2.
1—42" Kidder Merchant Model Pneumatic Control Shear Cut.
1—62" Type AA Langston Shear Cut.
1—36" Special Cellophane and Paper Slitter.
1—60" Hammersly Score Cut.
1—30" Langston Type A Shear Cut S. & R. Cut S. & R.
1—42" Langston Center Wind Duplex Shear Cut Slitter and Rewinder.

POWER PAPER CUTTERS

9—Seybold, 65" 6-Z, 44", 54" and 63" 20th Century; 34", 44", 48" and 54" Holyoke; Dayton, 50".
5—Oswegos, 32", 38", 44", 50" and 57".
6—Sheridans, 34", 36", 40", 50", 54" and 56".
1—Dexter, 50".
5—Acme, 32", 34", 36", 46" and 50".
1—Smith and Winchester Undercut 63".

MISCELLANEOUS MACHINES

1—6½" and 1—20" four unit Champlain Rotogravure Presses.
1—72" Hudson-Sharp 25W Winder for Waxed and Household paper rolls.
1—36" and 1—45" Beck Rotary Sheet Cutter with Jogger Table Delivery.
1—86" Creping machine. Has three 5" diameter dryers, complete unit.
1—Sheridan Die Press, Model 8B Platen 33" x 46".
1—Two Color, 24" wide Stracham and Henshaw Densitone Tail Printer.
1—New 24"—2 color, Roll to Roll Aniline Press.
1—48" Waldron Intaglio press for printing board in sheets.
1—32" Waldron Anti-friction Embossing Machine with Slitting attachment.
1—49" Wolverine Aniline Hydro-Printer, Roll to Roll.
1—Amsco heat sealing, crimping and folding machine.
1—62" Hammersly Squeeze Roll Waxing Machine.
2—Potdevin Waxing Machines, 82" wide.
2—Brand new 81" Dietz, very latest type, friction rewind combination toilet and towel roll convertors. Automatic counters and stop motions.
1—45" Hamblet Rotary Sheet Cutter with Backstands.
1—64" Dillon Duplex Rotary Sheet Cutter.
1—94" Moore & White Duplex Rotary Sheet Cutter.
1—116" Model 29 Hamblet Duplex Rotary Sheet Cutter, slitting attachment, Erie automatic layboy and twelve roll backstands.
1—36", 1—64" and 1—74" Hamblet Single Rotary Sheet Cutters, slitting attachments, 8 roll backstands, automatic layboys.
1—88" nine roll Holyoke Super Calender stack with drive and AC motor equipment.
2—Asphalt Laminating machines, one 70" and one 88".
1—1 color Rotary-X Gummed Tape Printing Press.
1—Roto Bag Machine Model C, with electric eye, for making cellophane, polyethylene pliofilm, bags in wide range of sizes.
1—84" Carthage wood chipper, 10 knives, belt drive.
2—36" x 76" Wet Machines.
2—22 Lamnoye Pulpers.
2—2000 lb. Niagara Iron Tub Beaters.
1—72" Holyoke nine roll Stack of Super Calenders.
1—114" Sandy Hill eleven roll stack of Calenders.
1—34" Waldron Gumed Paper Breaker.
1—40" Special roll to roll coater or saturator.
1—48" Waldron, one unit roll to roll coater.
1—42" Waldron, 2 Roll, Roller Coater. Puts 2 coats on both sides of web at one time or any combination. Applies any material to paper, cellophane, plastics, etc.
4—Special automatic spiral tube machines for cores or paper straws ⅛" to ¾" I.D.

GIBBS-BROWER CO. INC.
Please address reply to Room 902
21 East 40th Street, New York 16, N.Y.
Telephone Lexington 2-5759
N-23

WANTED

WANTED

134" Face Chilled Cast Iron Calender Rolls, with or without journals in 16", 18", 20" and 22" diameters. Also one 24" diameter with 132" face.

48" Diameter Cast Iron Dryers, 134" face in good condition with minimum journal of 7½" and suitable for 35 lb. operating pressure.

Oliver Filters or Savealls with 8' diameter molds of any length, iron or wood construction. Non-ferrous materials not desirable.

10" Vortraps.

When replying, give complete information and specifications, including serial numbers and your asking price. Write Box 51-561 care Paper Trade Journal. N-23

WANTED—Small Paper Mill currently operating. Foradrinier or Cylinder. Address Box 51-591 care Paper Trade Journal. D-7

WANTED—Several 48" or 60" Dryers, frames, etc.—66" to 72" wide. Rochester Paper Company, Rochester, Michigan. N-30

WANTED—To Expedite Production—W & P Shredders, Slitters, Hydraulic Presses, Evaporators, Generators and Boilers, Sheridan Presses, Dryers. Will consider set up plant now operating or shut down. When offering, give full particulars. P. O. Box 1351, Church Street Station, New York 8. TF

WANTED

WANTED TO BUY

Grocery Bag Machines, producing the complete size range of ¾ lb. to 35 lb. Recent model Potdevin preferred. Must be in good working order. Address Box 51-583 care Paper Trade Journal. N-23

WANTED—W & P Shredders, Evaporators, Generators and Boilers, Slitters, Cutters, Hydraulic presses, Sheridan Presses, Dryers. Address Box 51-89 care Paper Trade Journal. TF

WANTED—Used Vacuum Type Cylinders. Address Box 51-593 care Paper Trade Journal. N-30

WANTED—SHEETING MACHINE 60" to 72"—PREFERABLY WITH LAYBOY. Address Box 51-559 care Paper Trade Journal. N-30

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MANUFACTURERS' REPRESENTATIVE operating from Toledo, Ohio, calling on paper mills, is seeking additional accounts. 20 years experience, best of references. Address Box 51-595 care Paper Trade Journal. N-23

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BRUSHES
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Hercules Powder Co.
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Monsanto Chemical Company
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Stickle Steam Specialties Co.

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Dilts Machine Works

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Moore & White Co.
Rice Barton Corporation
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Shartle Brothers Machine Co.
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Waldron Corp., John

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Whiting Corp.

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Moore & White Co.
Perkins & Son, Inc., B. F.
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The Sandy Hill Iron & Brass Works
The Smith & Winchester Mfg. Co.
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General Dyestuff Corp.
Kinsley Chemical Co.
Nopco Chemical Co.

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The Permutit Company

DEMULSIFIERS
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General Dyestuff Corp.
Monsanto Chemical Company
Nopco Chemical Co.
Rohm & Haas Co.
Wyandotte Chemicals Corp., Michigan Alkali Div.

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American Cyanamid Company Industrial Chemicals Division
General Dyestuff Corp.
Nopco Chemical Co.

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Blaw Knox Company
Chicago Bridge & Iron Co.
Combustion Engineering-Superheater, Inc.
Lukenweld
Paper & Industrial Appliances
Pusey & Jones Corp.

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General Dyestuff Corp.
Monsanto Chemical Company
National Aluminate Corp.
Nopco Chemical Co.
Rohm & Haas Co.
Wyandotte Chemicals Corp., Michigan Alkali Div.

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Lodding Engineering Corp.
The Moore & White Co.
Rice Barton Corporation
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

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Bird Machine Company
Lodding Engrg. Corp.
The Moore & White Co.
Rice Barton Corporation
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Simonds Saw & Steel Co.

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Lukenweld
The Moore & White Co.
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J. J. Ross Company
Red-Ray Mfg. Co., Inc.
Rice Barton Corporation
Ross Paper Machy. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

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Manchester Machine Co.

DRILLED SUCTION DRUM ROLLS
Manchester Machine Co.

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Appleton Machine Co.
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Beloit Iron Works
Bird Machine Co.
Black Clawson Company
Downingtown Mfg. Co.
Fairbanks, Morse & Co.
Farrel-Birmingham Co.
Jeffrey Mfg. Co.
General Electric Company
Gibbs-Brower Company, Inc.
Moore & White Co.
Murray, D. J., Mfg. Co.
Pusey & Jones Corp.
Rice Barton Corporation
J. J. Ross Company
Ross Paper Machy. Corp.
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Shartle Bros. Mch. Co.
Stephens-Adamson Mfg. Co.
Valley Iron Works Co.
Westinghouse Electric Corp.

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Rice Barton Corporation

DRYER DRAINAGE
Stickle Steam Specialties Co.

DRYER ROLL PYROMETER
Thwing-Albert Instrument Co.

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M. W. Jenkins Sons, Inc.
E. D. Jones & Son Co.
Moore & White Co.
D. J. Murray Mfg. Co.
John Waldron Corp.

DUSTING BRUSHES
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Bunge Pulp & Paper Co.
Ciba Company
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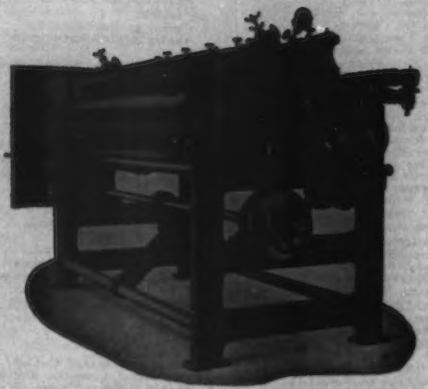

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Michigan Steel Casting Co.
Walworth Co.

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Monsanto Chemical Company
National Aluminate Corp.
Nopco Chemical Co.
Rohm & Haas Co.

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Aktivin Division, Heyden Chemical Corp.
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Rice Barton Corporation

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Holyoke Machine Co.

PRESSURE VESSELS
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Combustion Engineering-Superheater, Inc.

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Farrel-Birmingham Co.
Gibbs-Brower Company, Inc.
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Hudson-Sharp Mch. Co.
The Moore & White Co.
Potdevin Machine Co.
Rice Barton Corporation
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.
Waldron Corp., John
H. G. Weber & Co., Inc.
Williams Apparatus Co.

PULLEY
Lovejoy Flexible Coupling Co.
Rice Barton Corporation

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Thwing-Albert Instrument Co.

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Record Fdy. & Mach. Co.
Shartle Brothers Machine Co.

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Bauer Brothers Co.
Dilts Machine Works
E. D. Jones & Sons Co.
Morden Machines Co.
Shartle Brothers Machine Co.

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Parsons & Whittemore, Inc.
Perkins-Goodwin Co.
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Pulp and Paper Trading Co.
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PULPSTONES
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PULP TESTERS
Paper and Pulp Testing Laboratories
Williams Apparatus Co., Inc.

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Jeffrey Mfg. Co.
F. L. Smith & Co.

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Apmew, Inc.
The Bagley & Sewall Company
Beloit Iron Works
Black Clawson Company
Buffalo Pumps, Inc.
Byron Jackson Co.
DeLaval Steam Turbine Co.
Downingtown Mfg. Co.
Fairbanks, Morse & Co.
Gibbs-Brower Company, Inc.
Johnson Corp.
Moore & White Co.
Nash Engineering Co.
Roots Connersville Blower Corp.
J. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.

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Rohm & Haas Co.

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Taylor-Stiles & Co.

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Combustion Engineering-Superheater, Inc.
Moore & White Co.
D. J. Murray Mfg. Co.
Pusey & Jones Corp.
Ross Engineering Corp., J. O.
Valley Iron Works Co.

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The Appleton Machine Co.
The Bagley & Sewall Company
Beloit Iron Works
Black Clawson Company
Dilts Machine Works (Kohler Systems)
Egan, Frank W., & Co.
Downingtown Mfg. Co.
Hudson-Sharp Mch. Co.
Moore & White Co.
Rice Barton Corporation
Rodney Hunt Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
The Smith & Winchester Mfg. Co.
Waldron, John, Corp.

REFINERS
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Bauer Brothers Co.
Dilts Machine Works
Gibbs-Brower Company, Inc.
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Morden Machines Co.
Murray, D. J., Mfg. Co.
Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Sprout Waldron & Co., Inc.
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Valley Iron Works

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Bird Machine Company
General Electric Co.
Johnson Corp.
Shartle Brothers Machine Co.
Stickle Steam Specialties Co.
Taylor Instrument Companies

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Beloit Iron Works
Black Clawson Company
Dilts Machine Works
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Farrel-Birmingham Co.
Gibbs-Brower Company, Inc.
Holyoke Machine Co.
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Pusey & Jones Corp.
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Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
U. S. Rubber Co.
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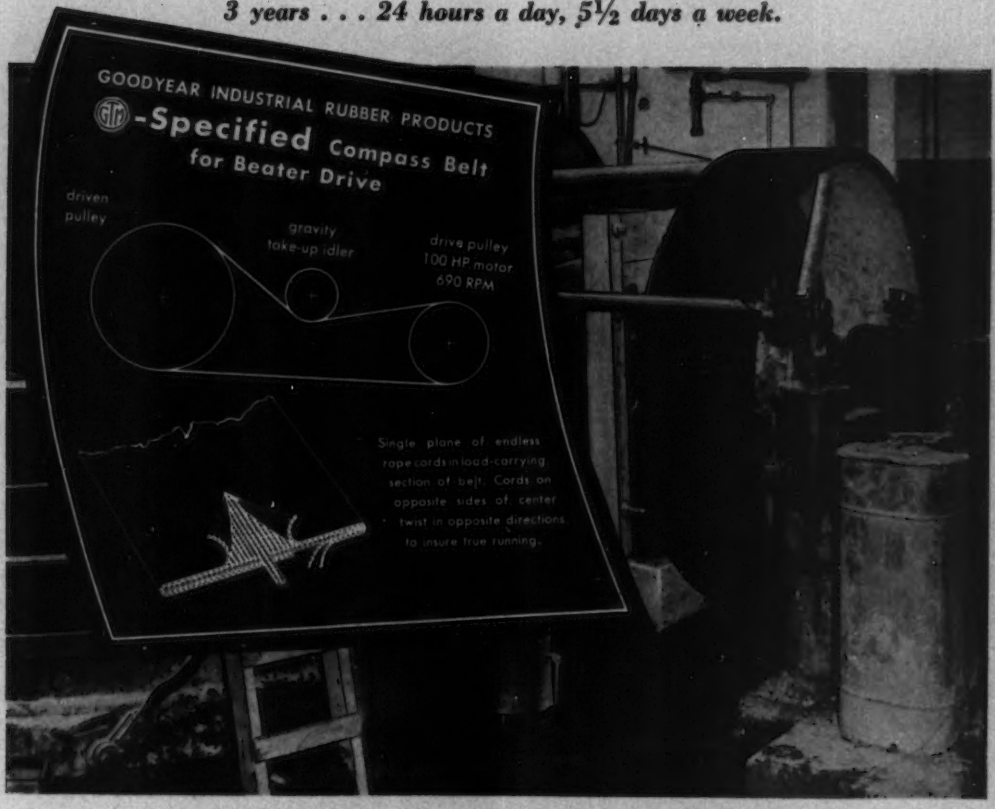
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100 HP motor
690 RPM
Single plane of endless rope cords in load-carrying section of belt. Cords on opposite sides of center twist in opposite directions to insure true running.

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